Model Tests from The School Book

Model Test 1

1 Choose the correct answer from those between brackets:

1) 7 - 5 .... ℕ. (∈ ، ∉ ، ⊂ or ⊄)

2) The set of even numbers (𝔼) ∩ the set of prime numbers (ℙ) = ... (ℙ ، ℕ ، ∅ or {2})

3) If we add 3 to twice a number x then we get the number .... ($3x$ ، $3+x$ ، $2x+3$ or $2x$)

4) (93 + 7) – (7 + 93) = ... (0 ، 10 ، 100 or 1 000)

5) The perimeter of an equilateral triangle whose side length ℓ cm = ...

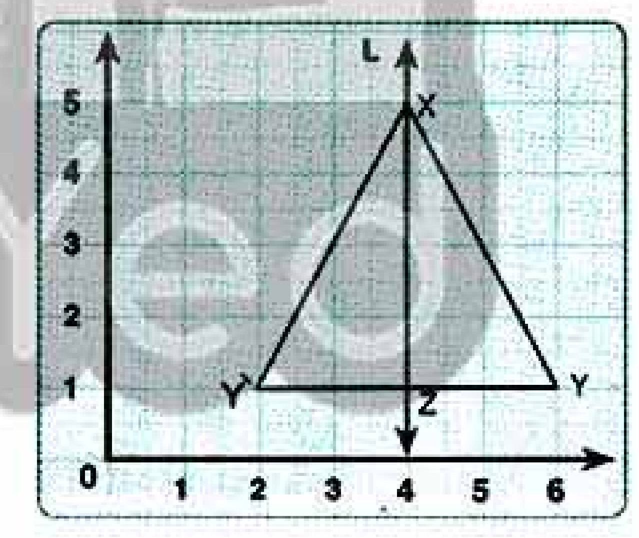
($\ell+3$ ، 3ℓ ، $6+\ell$ or 6ℓ)

6) If the area of a triangle is 20 cm² and its height is 5 cm, then the length of the corresponding base = ... cm. (4 ، 8 ، 16 or 64)

7) The circumference of circle whose radius length is 4 cm = π × .... cm. (4 ، 8 ، 16 or 10)

8) In the opposite figure:

the triangle XYZ is transformed to the triangle XY`Z, so this transformation is called .... (reflection ، rotation ، translation or otherwise)



9) (4 × 31) × 25 = (31 × ....) × 25. (2 ، 4 ، 3 or 5)

10) The area of the rhombus whose diagonals are 12 and 16 cm = ... cm²

(69 ، 96 ، 56 or 192)

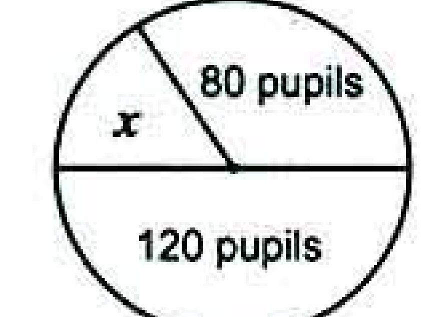
11) The length of $\overline{AB}$ = ... units of length.

A: 2, B: 6 on a number line 0 1 2 3 4 5 6 7 8

(2 ، 4 ، 5 or 6)

12) The area of the square of the diagonal length is 10 cm = ... cm² (25 ، 50 ، 100 or 400)

13) In the opposite bie chart:



x represents .... pupils.

(40 ، 80 ، 120 **or** 240)

14) The following table represents the marks of 40 pupils in an exam:

Sets	10-	20-	30-	Total
Frequency	10	12	18	40

Then the number of pupils who got 30 marks or more = ... pupils.

(18 ، 44 ، 40 **or** 80)

2 Complete each of the following:

15) 13 , 16 , 19 , ... (in the same pattern)

16) The symbolic expression for "a number x is multiplied by 5" is ....

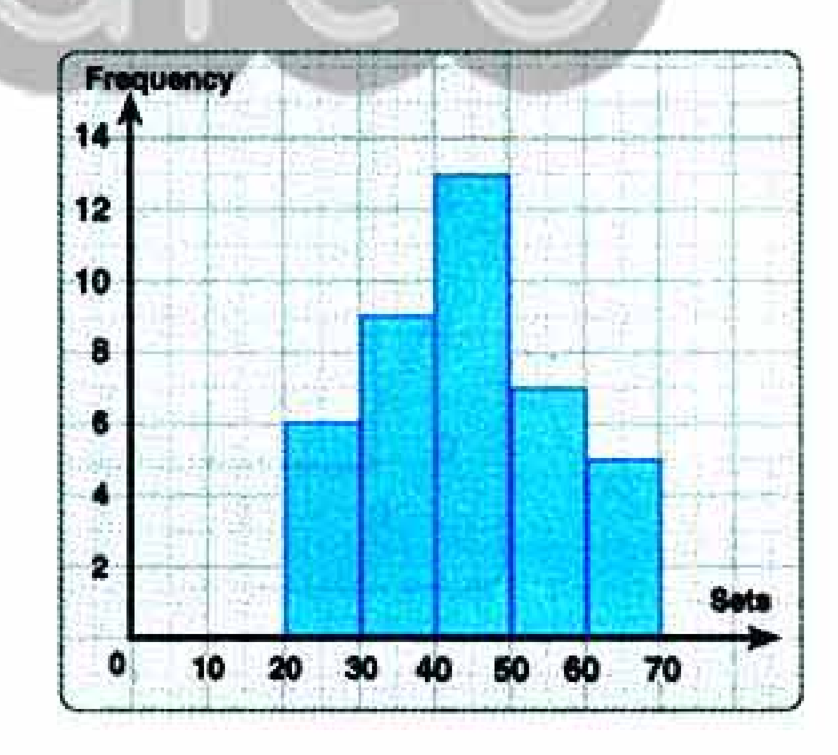
17) The set of natural numbers which are less than 2 is ....

18) The area of the square whose diagonal length 6 cm = ... cm^2.

19) If point A lies on the axis of reflection (L) then its image by reflection across (L) is ....

20) The radius length of a circle whose circumference is 88 cm = ... cm.

21) The opposite figure shows the marks of 40 pupils in one exam, the number of pupils who got less than 40 marks is ....



22) The solution of the equation $x - 2 = 2$ in $\mathbb{N}$ is ....



3 Find the result of each of the following:

23) Two numbers their sum is 35 if one of them is x, then find the other number.

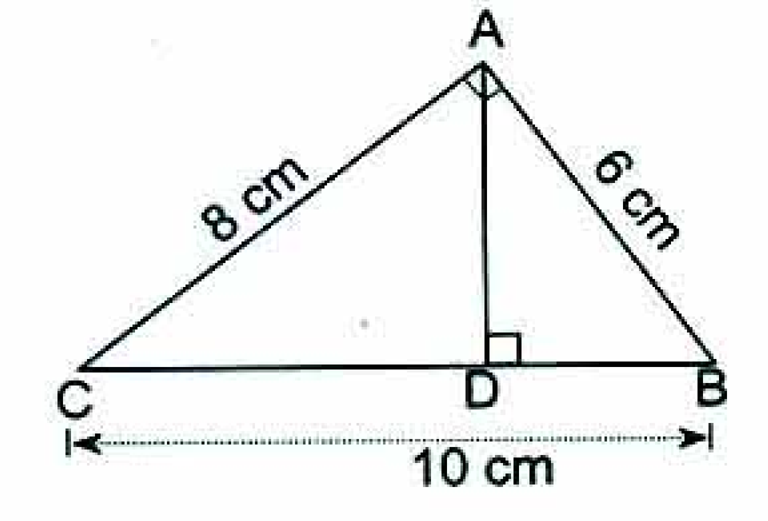
24) By using the properties of addition operation in ℕ find the result of:

$$53 + 67 + 47$$

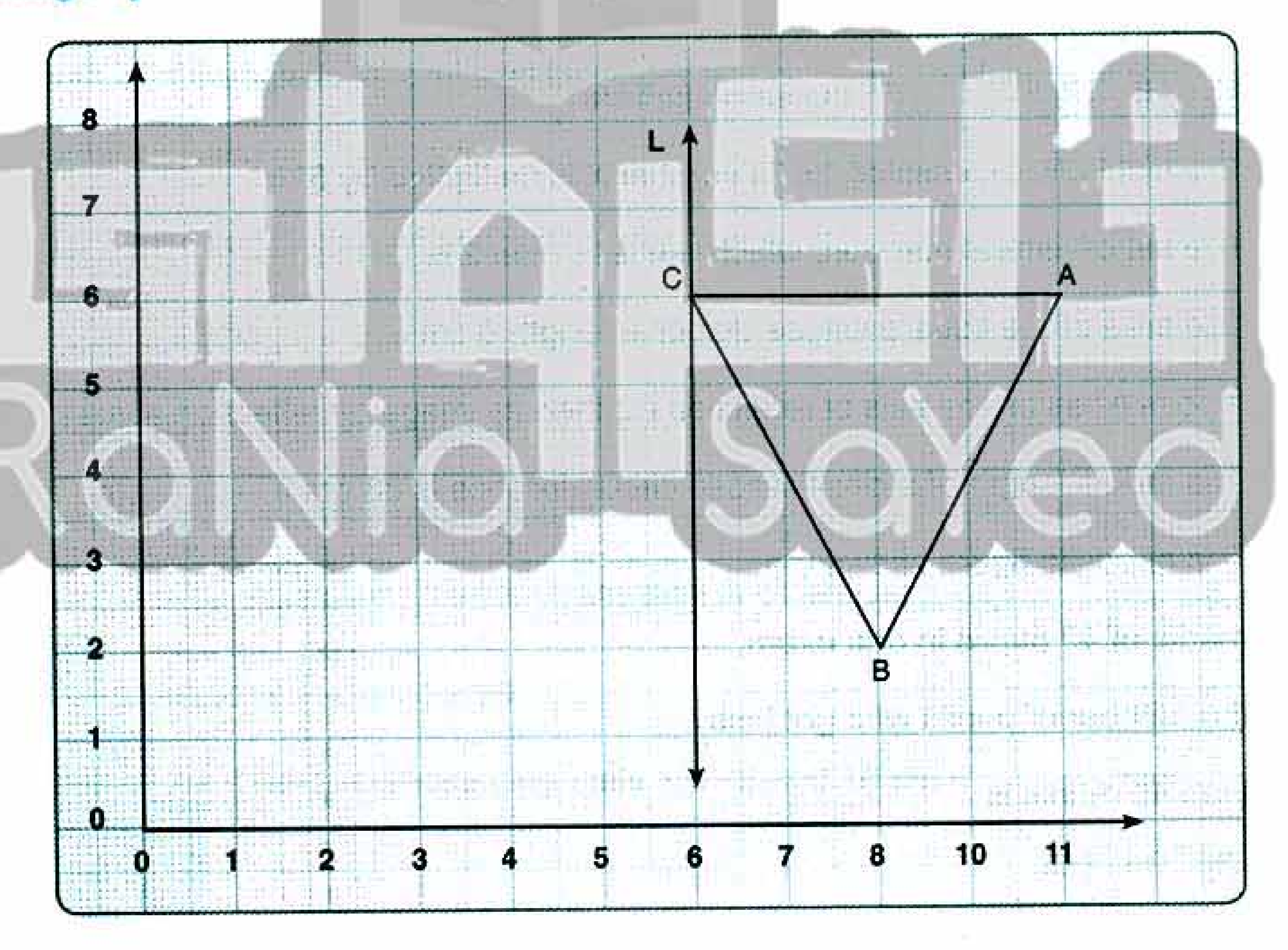
25) In the opposite figure:

ABC is a right-angled triangle at A,

$\overline{AD} \perp \overline{BC}$. Calculate the length of $\overline{AD}$.



26) In the following coordinates plane, if L is the axis of reflection of △ ABC then draw its image by reflection in L.



Model Test 2

1 Choose the correct answer from those between brackets:

1) The symbolic expression for "twice the number y" is .... (y + 2 ، 2y ، y or y - 2)

2) The even number E ∩ the odd numbers O = ... (0 ، 2 ، 1 or ∅)

3) A circle if its diameter length is 28 cm ($\pi \simeq \frac{22}{7}$) then its circumference = ... cm

(22 ، 44 ، 88 or 56)

4) The smallest natural number is .... (0 ، 1 ، 2 or 10)

5) If 86 × 15 = 86 × y + 86 × 10 then y = ... (10 ، 5 ، 15 or 20)

6) 8 ÷ 4 .... ℕ (∈ ، ∉ ، ⊂ or ⊄)

7) The area of the square whose diagonal length is 8 cm = ... cm^2 (16 ، 32 ، 64 or 128)

8) The area of the rhombus whose diagonal lengths are 6 cm and 8 cm = ... cm^2

(12 ، 24 ، 48 or 96)

9) The pie chart which represents the following data is ....

Subject	Arabic	Maths	Science
No. of studying hours	3	2	1

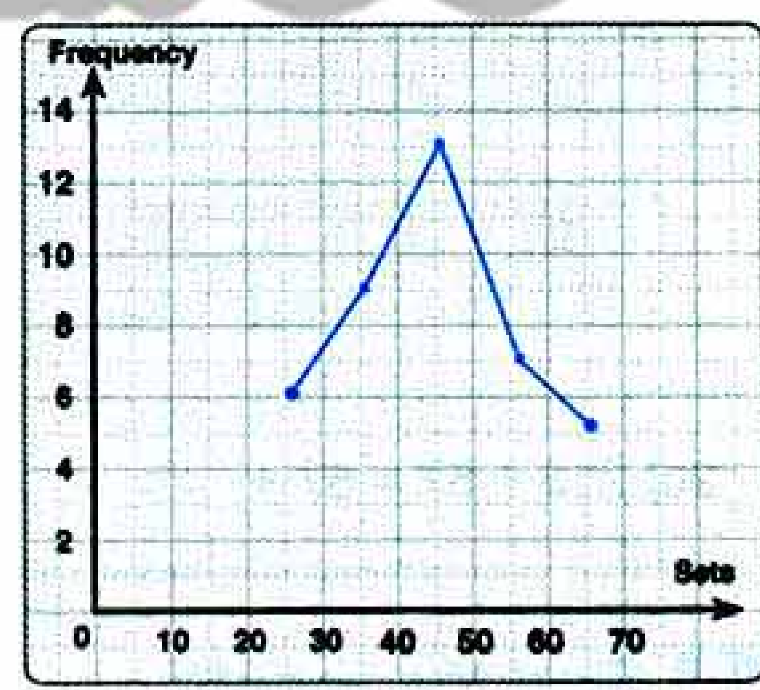
(1): Science, Maths, Arabic ; (2): Maths, Science, Arabic ; (3): Science, Maths, Arabic ; (4): Maths, Arabic, Science

((1) ، (2) ، (3) or (4))

10) The opposite frequency polygon represents the marks of 40 pupils in an exam.

The centre of the set 40 – is ....

(14 ، 40 ، 45 or 50)

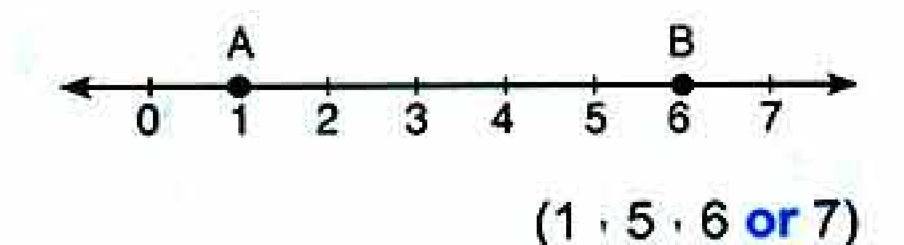


11) The area of the triangle whose base length is 12 cm and height is 5 cm = ... cm^2.

(30 ، 60 ، 17 or 34)

12) From the opposite number line:

The length of $\overline{AB}$ = ... unit(s) of length.



(1 , 5 , 6 **or** 7)

13) The square whose perimeter is 32 cm.

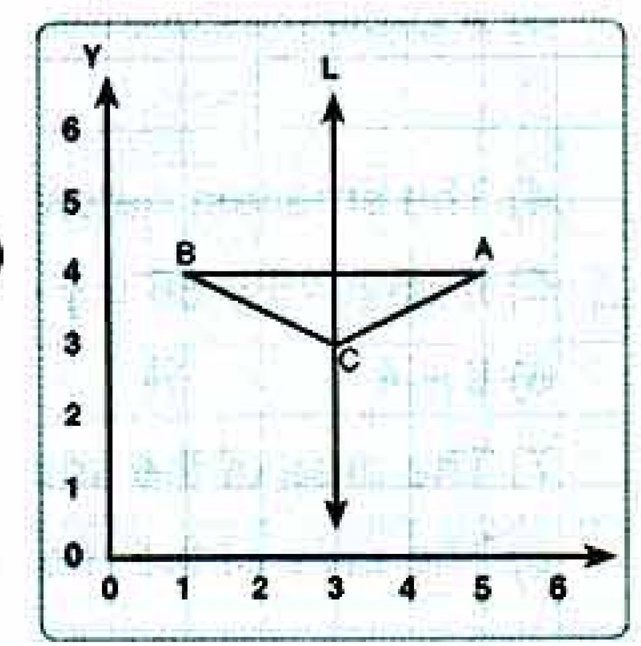
Its area = ... cm².

(1024 , 64 , 23 **or** 821)

14) In the opposite coordinates plane:

The image of point A by reflection in L is ....

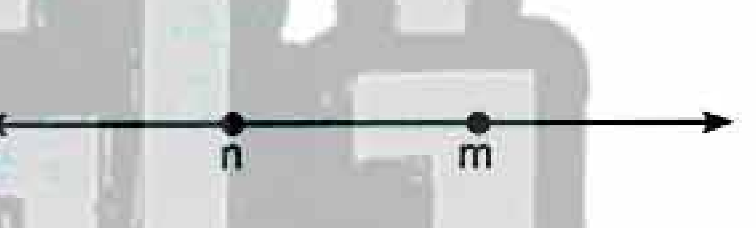
((1, 4) , (4, 1) , (3, 3) **or** (4, 51))



2 Complete the following:

15) If x is an odd number, then $x + 1$ is .... number.

16) In the opposite number line: If m, n are two natural numbers then .... < ....

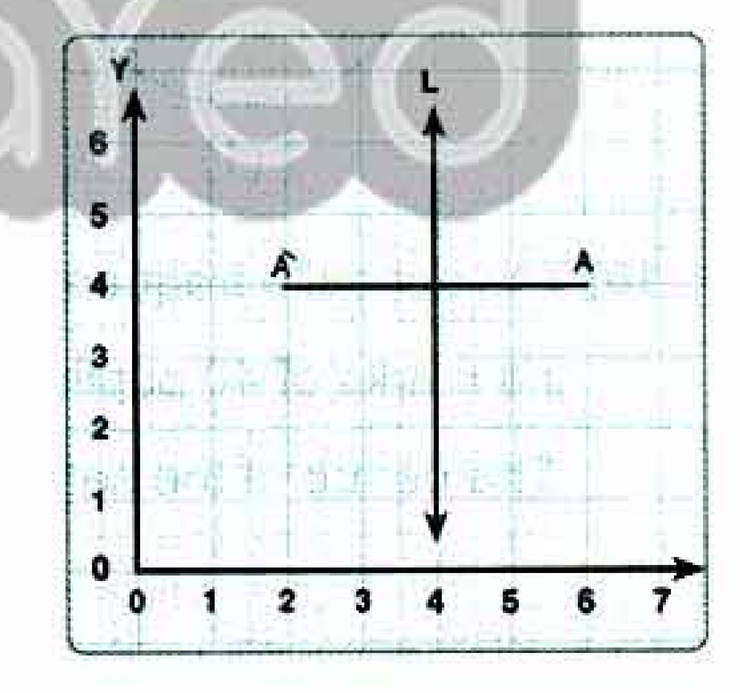


17) If we add 3 to the number x, then the result is ....

18) The area of a rhombus in which the side length is 10 cm and height is 9.6 cm = ... cm².

19) In the opposite figure:

L is called .... of the line segment AA`

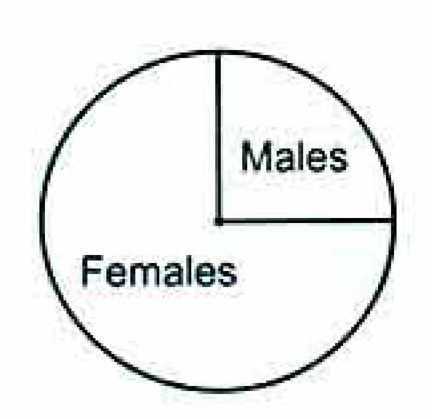


20) 213 + 57 = 57 + ...

3 Find the result:

21) If 2 x = 4, then 4 x = ...

22) 200 candidates have applied for a test to hire male and female anchor persons in television. If the opposite pie graph represents that, then what is the number of female candidates who applied for that test?



The number of females = ...

23) Use the distribution property to find:

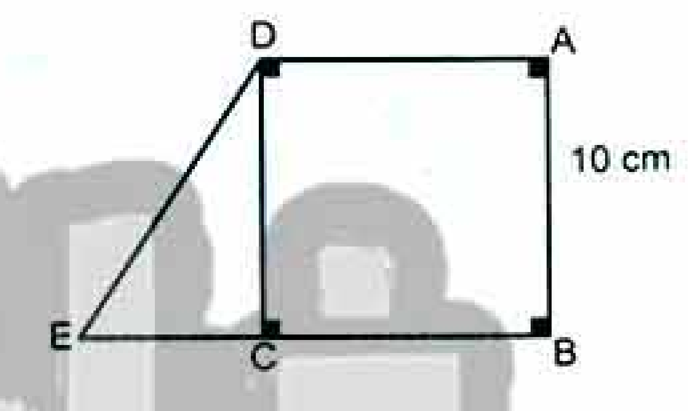
45 × (10 + 2)

24) Find the solution set of the equation:

$x - 7 = 33$ (where $x \in \mathbb{N}$)

25) in the opposite figure:

ABCD is a square its side length is 10 cm , $E \in \overrightarrow{BC}$

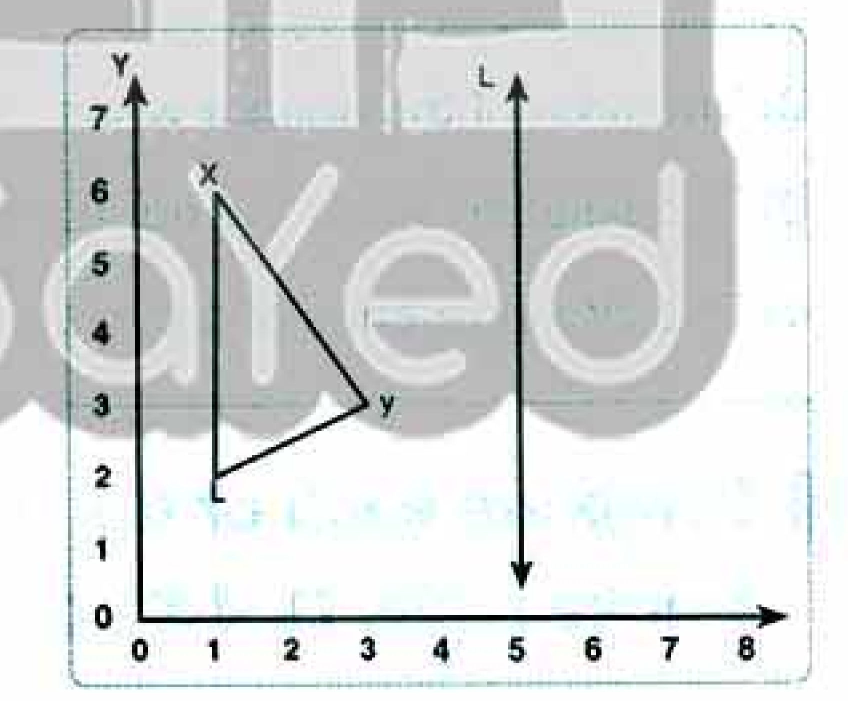



and BE = 15 cm.


Calculate the area of the figure ABED.

26) In the opposite coordinates plane,

if L is the axis of reflection for the figure XYZ then find its image by reflection in L.



Model 3 for students with special needs

1 Choose the correct answer:

1) The smallest natural number is ………… (0 , 1 **or** 2)

2) If $7 \times 15 = x \times 15$, then $x =$ ………… (7 , 8 **or** 9)

3) If we multiply the number (x) by 5, then we shall get the number ……… ($x \div 5$, $5x$ **or** $x - 5$)

4) The set of numbers which represents the set of points on the number line is …………

(number line from 0 to 10 with points marked at 1, 3, 5, 7)

(odd, even **or** prime)

5) If 𝔼 is the set of even numbers, then 𝔼 ………… ℕ ($\in$, $\notin$, $\subset$ **or** $\not\subset$)

6) The following table shows the recorded temperatures in 40 cities on a day:

Temperatures	20-	22-	24-	26-	28-	Total
Number of cities	7	9	11	8	5	40

The number of cities with temperatures less than 24 degree Celsius = …………… cities.

(11 , 16 **or** 27)

7) 5075 ………… 5705 (> , < **or** =)

8) The area of the square whose diagonal length is 6 cm = ………… cm^2 (12 , 18 **or** 81)

9) The solution set of the equation $x - 5 = 19$ ({14} , {24} **or** {5})

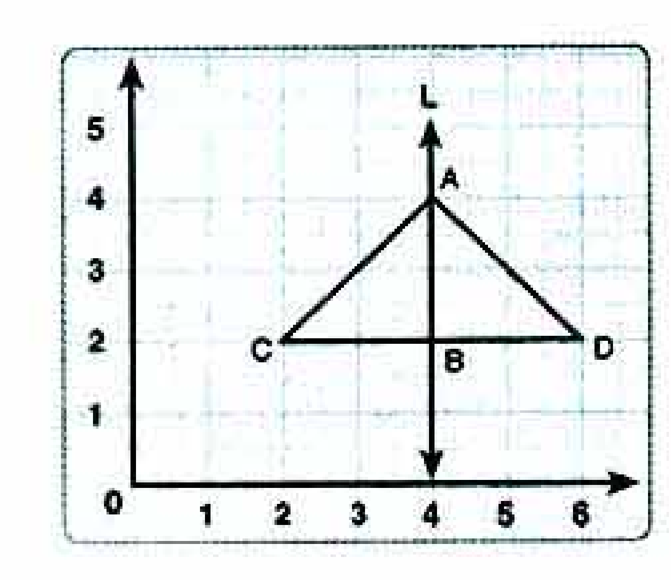
10) The circumference of a circle of radius 35 cm is ………… cm. ($\pi \simeq \frac{22}{7}$) (110 , 220 **or** 202)

2 Complete each of the following by using the answers between the brackets (24, D, 4 x , ℂ, commutative):

1) A rhombus of diagonal lengths 6 cm and 8 cm, its area = ………… cm^2.

2) The perimeter of a square of side length x cm = ………… cm.

3) On the opposite coordinate plane the image of the point C by reflection in the straight line L is ……………… .



4) The set of natural number ℕ ∩ the set of counting number ℂ = ...

5) 327 × 8 = 8 × 327 (............ property)

3 *Join from column (A) to the suitable from the column (B):*

	A	B
1	If $x + 3 = 8$ then $x =$ .... •	• ∈
2	(24 + 6) .... ℕ •	• the length of the diagonal
3	The circumference of a circle = π × .... •	• 5
4	The area of the following parallelogram = ... cm² •	• 50
5	8, 16 , 24 , ... (in the same pattern) •	• 32

Examinations from Different Governorates 2018

1 Cairo Governorate – Maadi Educational Directorate

1 Choose the correct answer:

1) The expression of: x subtracted from 7 is .... ($x - 7$ or $7 - x$ or $x + 7$ or $7x$)

2) $\frac{8}{4}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

3) The figure F ╥ is .... (reflection or translation or rotation or none of the previous)

4) 32 + 0 = 32   The property is ....

(commutative or associative or distribution or additive identity)

5) $\{4 , 5 , 7\} \cap \mathbb{E} =$ .... ($\{4\}$ or $\{5\}$ or $\{7\}$ or $\{5 , 7\}$)

6) If $x \times 4 = 20$, then $x =$ .... (80 or 5 or 16 or 24)

7) If the radius length of a circle is 3 cm, then the diameter length = ... cm.

(3 or 6 or 9 or 27)

8) If the sum of two numbers x and y is 10, then y = ...

($\frac{10}{x}$ or $10 + x$ or $10 - x$ or $10x$)

9) $\frac{7}{4 - 4}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

10) If a is an odd number, then a + 3 = ... number. (odd or even)

11) $\mathbb{E} \cap \mathbb{P} =$ .... ($\{2\}$ or $\{3\}$ or E or P)

12) $\mathbb{N} = \{0 , 1 , 2 , 3 , 4\}$ .... (right or wrong)

13) 3 dm² = ... cm². (30 or 3000 or 3 or 300)

14) (number line: 0 1 2 3 4 5 6, with points at 2 and 5), AB = ... units. (2 or 3 or 4 or 5)

2 Complete the following:

15) The number of axes of symmetry of the equilateral triangle = ...

16) The area of a square of a diagonal length 6 cm is ....

17) The multiplicative identity element in $\mathbb{N}$ is ....

18) 3 , 6 , 12 , 24 , ... (in the same pattern)

19) Area of parallelogram = ... × ....

20) If X = {4 , 5 , 6} , Y = {4 , 2 , 3} , then X ∪ Y = ...

21) The set of even number less than 10 is ....

22) Area of a rhombus = ... × .... × ....

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3 **a)** Solve the equation: $3x + 8 = 14$

b) Find the area of a triangle whose base length is 6 cm and its height is 4 cm.

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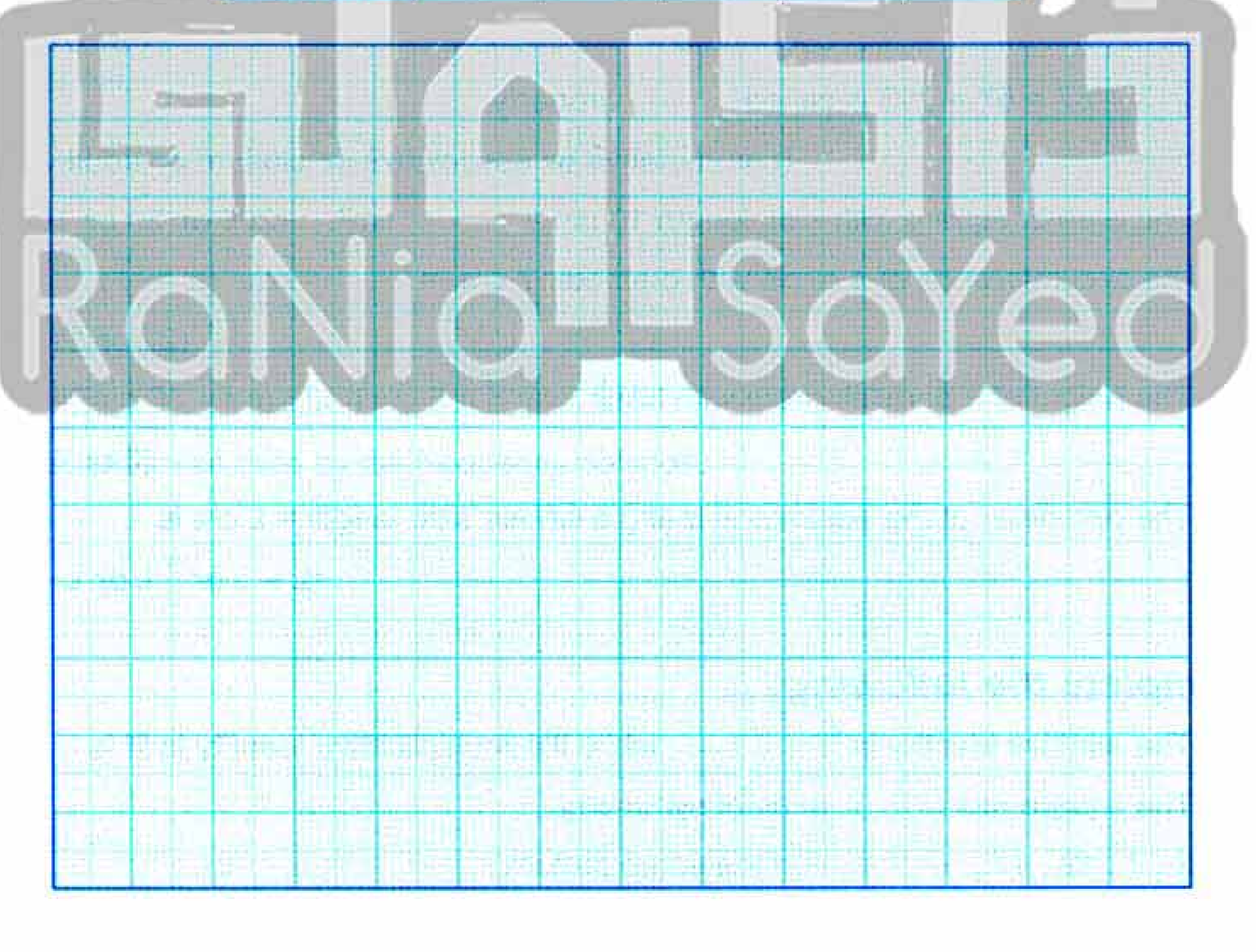
4 A circle whose radius length is 21 cm, find its circumference. ($\pi = \frac{22}{7}$)

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5 **a)** Use the distributive property to find the value: $25 \times 8 + 25 \times 2$

b) Represent the following data frequency polygon:

Sets	10–	20–	30–	40–	Total
Frequency	8	10	16	6	40





2 Cairo Governorate – Nasr City Educational Zone – Alsun Modern School

1 Choose the correct answer:

1) $53 \times 16 = 16 \times$ .... (35 or 61 or 53 or 16)

2) The set of natural numbers that are less than 5 is ....
({0 , 1 , 2 , 3 , 4} or ∅ or {5} or {1 , 2})

3) If $a \in \mathbb{N}$, $b \in \mathbb{N}$, then $a \times b$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

4) $\{2 , 3\} \cap \{1 , 4\} =$ .... (∅ or {1 , 2 , 3} or {2 , 3} or {3 , 4})

5) 2 y = 10, then the value of y is .... (5 or 6 or 8 or 14)

6) The area of the triangle whose base length is 5 cm and height is 8 cm = ... cm². (20 or 40 or 30 or 15)

7) The isosceles triangle has.............. line(s) of symmetry. (1 or 2 or 3 or 4)

8) The shaded triangle is the image of the other triangle by a ....
(perimeter or area or translation or rotation)

9) If A (5 , 6) , then the first coordinate = ... (1 or 6 or 11 or 5)

10) 213 + 57 = 57 + 213 is called .... property.
(commutative or associative or closure or additive identity)

11) The area of square with side length 10 cm = ... cm². (200 or 30 or 100 or 400)

12) The circumference of a circle with diameter 7 cm, = ... cm. ($\pi = \frac{22}{7}$)
(22 or 11 or 8 or 7)

13) The height of a parallelogram with base length = 6 cm and area = 30 cm² = ... cm.
(3 or 4 or 5 or 8)

14) The perimeter of the equilateral triangle whose side length = L cm is .... cm.
(L + 3 or $\frac{1}{3}$ L or L – 3 or 3 L)

2 Complete the following:

15) The additive identity in $\mathbb{N}$ is .... while the multiplicative identity in $\mathbb{N}$ is ....

16) The square has .... axes of symmetry.

17) 2 , 7 , 12 , 17 , ... (in the same pattern)



18) If the area of rhombus is 50 cm^2 and the length of one of its diagonal is 25 c, then the length of the other diagonal = ... cm.

19) E ∪ O = ...

20) $x + 5 = 8$, then x = ...

21) 15 × 5 + 15 × 7 = 15 × (.......... + ...)

22) If the age of Dina now is x years, then:

a) The age of Dina after 7 years = ...

b) The age of Dina 5 years ago = ...

3 *Find the result of:*

23) Use the properties of the operation to find:

a) 4 × 19 × 25

b) 64 + 81 + 36 + 19

24) Solve the equation: $x - 5 = 2$

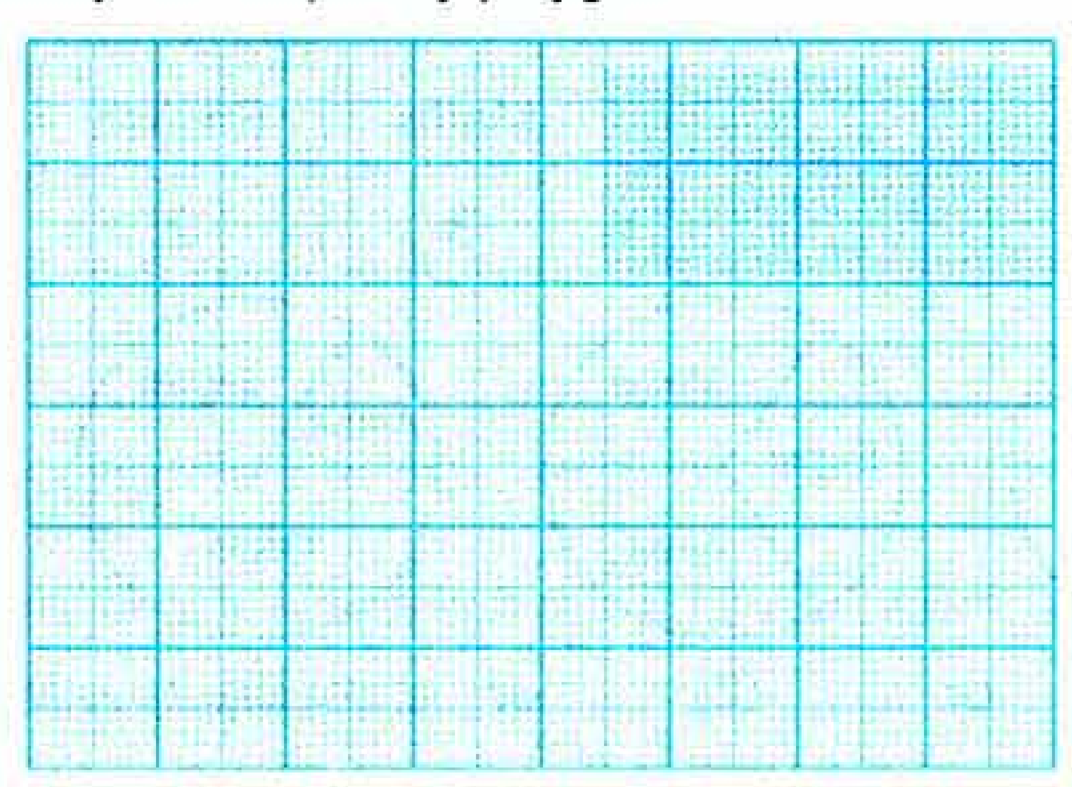
25) Draw the triangle ABC in which A = (2 , 5) , B (5 , 5) , C = (5 , 2), then find the length of $\overline{AB}$.

26) If X = {1 , 2 , 3 , 4} and Y = {4 , 5 , 6}. Find: X ∩ Y , X ∪ Y , X – Y

4 The following table shows the marks of students in maths exam:

Sets	10–	20–	30–	40–
Frequency	7	12	10	9

Represent these data by the frequency polygon.



3 Cairo Governorate – Abdeen Zone – Mohamed Farid O.L.S.

1 Choose the correct answer:

1) (12 ÷ 3) .... ℕ. (∈ or ∉ or ⊂ or ⊄)

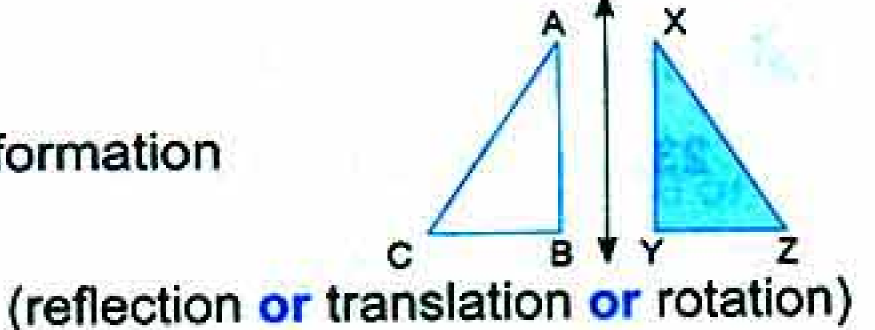
2) The smallest even natural number is .... (4 or 2 or 1 or 0)

3) 27 × 100 = 27 × 65 + 27 × a, then a = ... (100 or 65 or 35 or 30)

4) If $x - 2 = 3$, $x \in \mathbb{N}$ then x = ... (3 or 4 or 5 or 6)

5) The symbolic expression for the double of the number y is ....
(y + 2 or 2 y or y – 2 or $\frac{y}{2}$)

6) In the opposite figure:



Δ ABC is transformed into Δ XYZ, then this transformation is ....
(reflection or translation or rotation)

7) In the opposite figure:

A B
0 1 2 3 4 5 6 7 8

The length of $\overline{AB}$ = ... length units. (3 or 4 or 5 or 6)

8) The sum of two numbers is 10, one of them is x, then the other number is ....
($10x$ or $x - 10$ or $10 - x$ or $x + 10$)

9) If the base length of a triangle is 6 cm, the corresponding heigth is 5 cm, then its area = ... cm^2. (30 or 15 or 10 or 6)

10) The circumference of a circle of radius 4 cm = ... × π (2 or 4 or 8 or 16)

11) The area of the rhombus whose diagonal lengths are 6 cm and 10 cm = ... cm^2.
(12 or 15 or 30 or 60)

12) The area of the square whose diagonal lengths are 6 cm and 10 cm = ... cm^2.
(36 or 24 or 18 or 12)

13) The circular sector which represents the following data is number ....

Subject	Maths	English	Arabic
No. of studying hours	3	2	1

English Arabic Maths | Maths English Arabic | Arabic English Maths | Maths Arabic English

((1) or (2) or (3) or (4))

14) The following table shows the marks of 40 pupils in one test.

Sets	10–	20–	30–	Sum
Frequency	12	10	18	40

The number of pupils who got 20 marks or more = ... pupils. (10 **or** 18 **or** 28 **or** 40)

2 Complete the following:

15) The set of even number 𝔼 ∩ the set of odd number ◎ = ...

16) The additive identity element in is ℕ ....

17) If $x + 3 = 5$, $x \in \mathbb{N}$, then x = ...

18) The set of nature number(s) less than 2 = ...

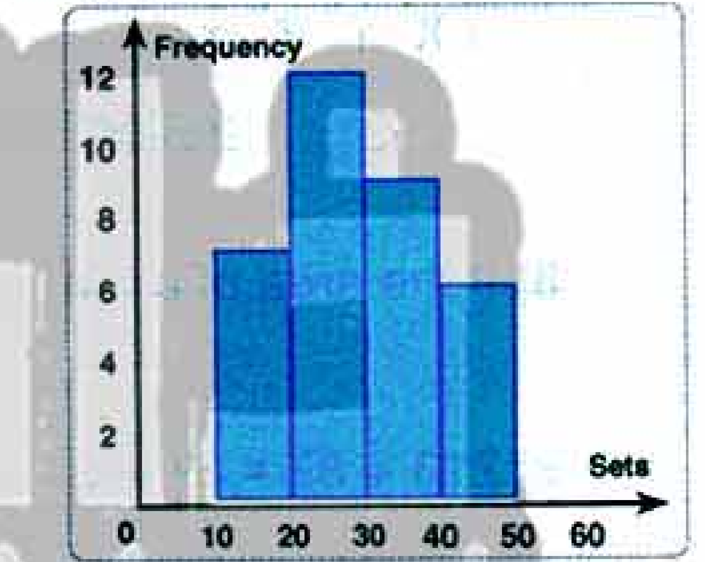
19) The number of symmetry axes of square = ...

20) If the point A lies on the axis of reflection L, then its image by reflection in L is ....

21) The area of the square whose perimeter is 16 cm = ... cm²

22) The opposite figure shows the marks of 34 pupils in one test.

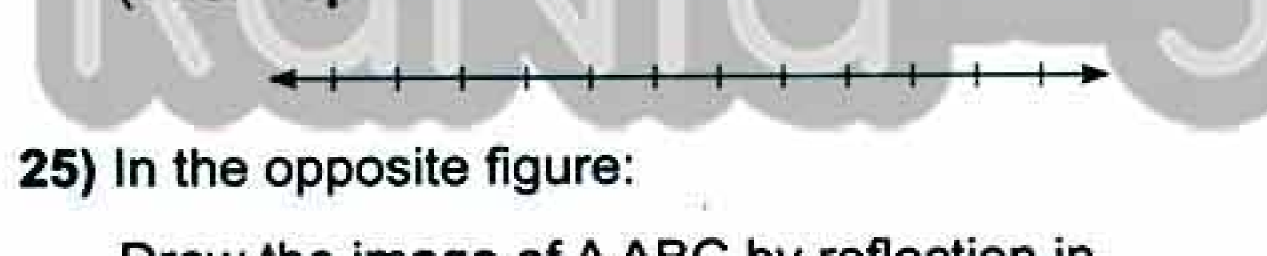
The number of pupils who got less than 30 marks = ... pupils.



23) Use the properties of addition in ℕ to find the result 33 + 76 + 67

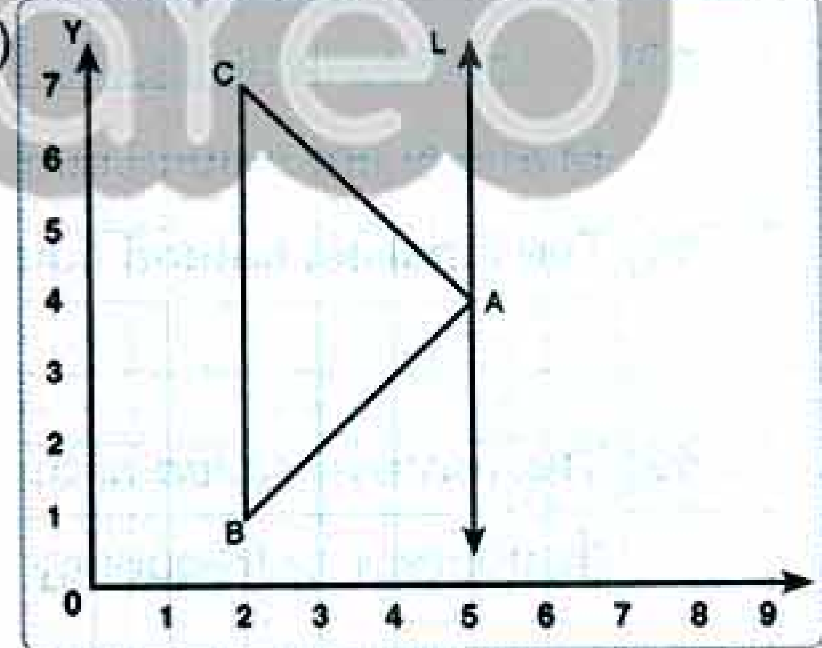
24) If X = {x : $x \in \mathbb{N}$, $x \geq 3$}, then X = ...

(Then **represent** its elements on the **number line**)



25) In the opposite figure:

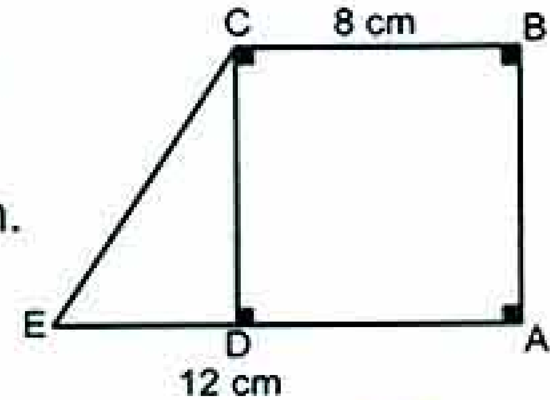
Draw the image of Δ ABC by reflection in the straight line L



26) In the opposite figure:

ABCD is a square of side length is 8 cm, E ∈ $\overrightarrow{AD}$, AE = 12 cm.

Find the area of the shape ABCE.



4 Giza Governorate – El Haram Directorate – Fadl Language School

1 Choose the correct answer:

1) If we add 3 to the number x, we get .... ($3x$ or $x + 3$ or $2x$ or $2x + 3$)

2) The circumference of a circle of a radius 4 cm = ... cm. (4π or 8π or 10π or 16π)

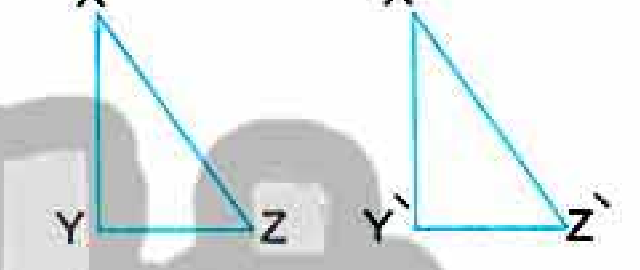
3) The area of the square whose diagonal is 6 cm = ... cm^2. (24 or 36 or 6 or 18)

4) $\frac{3}{2-2}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

5) A rhombus of diagonal lengths 6 cm and 8 cm, its area = ... cm^2.
(24 or 48 or 14 or 6)

6) The perimeter of the equilateral triangle whose side length is L = ...
(L + 3 or 3 L or L + 6 or 4)

7) In the opposite figure: Δ XYZ is transformed to Δ X\`Y\`Z\` by ....
(reflection or translation or rotation or otherwise)



8) If the area of a triangle is 20 cm^2 and its base length is 8 cm, then its height = ... cm^2.
(80 or 40 or 20 or 5)

9) 213 + 87 = 87 + 213. (............ property)
(associative or commutative or closure or otherwise)

10) In the opposite figure: (number line with points N and M)
M and N are natural numbers, then .... (M < N or M > N or M = N or otherwise)

11) The smallest natural number is .... (0 or 1 or 2 or 3)

12) The representation of these data is called ....
(histogram or frequency or bar graphs or otherwise)

13) The set of even number ($\mathbb{E}$) $\cap$ the set of odd number ($\mathbb{O}$) = ...
($\mathbb{E}$ or $\mathbb{O}$ or $\varnothing$ or $\mathbb{N}$)

14) If the circumference of a circle = 44 cm, $\pi = \frac{22}{7}$, then its radius = ... cm.
(7 or 14 or 21 or 28)

2 Complete:

15) If $x + 5 = 7$, then $x =$ ....

16) The area of the opposite figure = ... cm².

5 cm

10 cm

17) (4 × 31) × 25 = (31 × ....) × 25

18) Number of axes of symmetry of the square is ....

19) If a point B lies on the axis of reflection L, then its image by reflection in L is ....

20) The following table recorded the temperature in 40 cities on a day:

Temp.	20–	22–	24–	26–	28–	Total
No. of cities	7	9	11	8	5	40

The number of cities with temperatures less than 24 degrees Celsius is .... cities.

21) If x is an odd number, then $(x + 2)$ is a/ an .... number.

22) 5 , 10 , 15 , ... (in the same pattern)

3 Answer the following questions:

23) By using the properties of the operations in $\mathbb{N}$,

Find the result of: 8 × 117 × 125.

....

24) Solve the equation in $\mathbb{N}$:

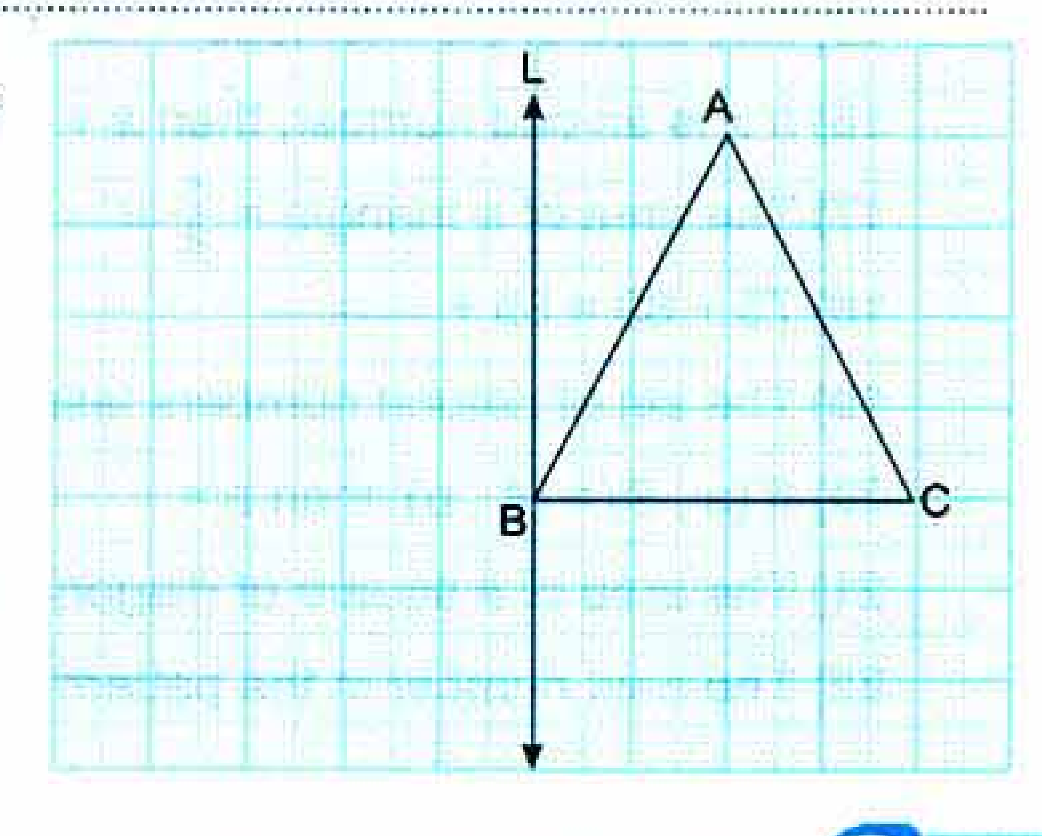
$2x - 3 = 5$

....

25) A circle of diameter 14 cm, find its circumference. ($\pi = \frac{22}{7}$)

....

26) If L is the axis of reflection, draw the image of Δ ABC by reflection in L.



5 Giza Governorate – Maths Supervision

1 Choose the correct answer:

1) The circumference of a circle = ... (π r or 2 π r or 3 π r or 4 π r)

2) Add 3 to the number Y is .... (Y or Y ÷ 3 or Y – 3 or Y + 3)

3) 2 + 5 .... N. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

4) The square has .... line(s) of symmetry. (4 or 1 or 2 or 3)

5) 4, 7, 10, 13, ... (in the same pattern) (15 or 14 or 16 or 19)

6) If 4 x = 20, then x = ... (4 or 5 or 10 or 16)

7) The area of a square of side length is 6 cm = ... cm^2. (24 or 36 or 12 or 72)

8) If x + 2 = 8, then x = ... (6 or 10 or 4 or 16)

9) 17 .... N. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

10) ℕ – ◎ = ... (ℕ or {2} or 𝔼 or ∅)

11) The area of a triangle of base length is 8 cm and height is 5 cm = ... cm^2. (20 or 40 or 10 or 46)

12) The area of a parallelogram of base length is 7 cm and height is 4 cm = ... cm^2. (11 or 28 or 22 or 56)

13) The area of the rhombus whose diagonal lengths are 6 cm and 8 cm = ... cm^2. (7 or 14 or 24 or 48)

14) The smallest natural number is .... (0 or 1 or 2 or 3)

2 Complete:

15) The area of the rhombus = half the product of ....

16) If x is an odd number, then x + 1 is an .... number.

17) The area of a triangle = $\frac{1}{2}$ × .... × ....

18) 75 + 89 = 89 + ...

19) The set of natural numbers less than 5 are ....

20) If (a , 9) = (4 , b), then a = ... and b = ...

21) The area of a square of diagonal length is 8 cm = ... cm^2.

22) The next number in the pattern: 1 , 3 , 9 , 27, ...

3 Answer the following questions:

23) Solve the equation: $x + 7 = 15$

....

24) Use the properties of addition to find: 20 + 55 + 80 + 45

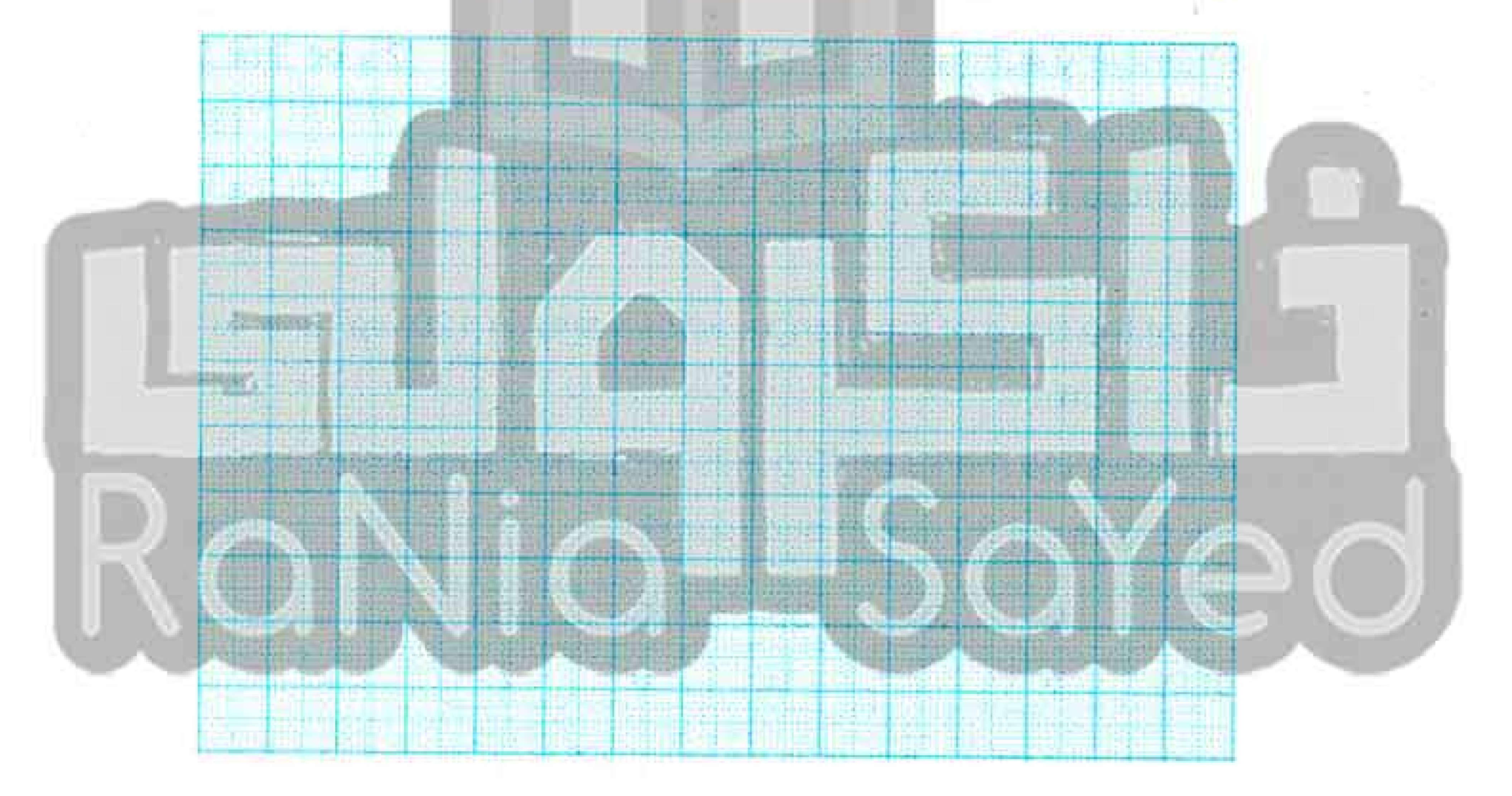
....

25) Find the circumference of a circle with radius length 14 cm. (Where $\pi = \frac{22}{7}$)

....

26) Use the following table to draw a histogram:

Sets	10–	20–	30–	40–
Frequency	4	5	6	5



6 Alex. Governorate – El Montazah Zone – Maths Supervision

1 Choose the correct answer:

1) If the sum of two numbers is 21 and one of them is x. Then the other number is ....
($x - 21$ or $21 - x$ or $x + 21$)

2) The area of the square whose diagonal length is 10 cm = ... cm². (100 or 20 or 50)

3) The number of axes of symmetry of rhombus is .... (zero or 1 or 2 or 4)

4) If $2x + 7 = 15$, then x = ... (3 or 4 or 6 or 5)

5) If x is an odd number, then $x + 1$ is an .... number. (even or odd or otherwise)

6) $(4 \times 31) \times 25 = (31 \times$ .... $) \times 25$ (4 or 2 or 3 or 5)

7) The circumference of circle of radius 5 cm = $\pi \times$ .... cm. (4 or 5 or 10 or 25)

8) Twice the number y subtracted 3 from it = ... (2 y or 3 or 2 y – 3 or 3 – 2 y)

9) If $4 \times 35 = (x \times 5) + (x \times 30)$, then x = ... (30 or 5 or 14 or 4)

10) The circle whose radius is 7 cm, its circumference = ... cm. ($\pi = \frac{22}{7}$)
(3.5 or 7 or 22 or 44)

11) The length of the base of the triangle whose area is 120 cm² and its height is 5 cm = ... cm. (12 or 48 or 24 or 6)

12) The table shows the marks of 40 pupils in mathematics exam, from these data.
How many pupils got 30 marks and more? (12 or 28 or 16 or 21)

Sets	10–	20–	30–	40–	50–
Frequency	5	7	12	9	7

13) The geometric transformation in the opposite figures is:
(translation or rotation or reflection)

14) The centre of the set that starts by 10 and ends at 20 is ....
(30 or 15 or 200 or 25)

2 Complete the following:

15) If the longest chord of circle is 10 cm, then its circumference = ... cm.

16) The additive neutral element in ℕ is ....

17) If $(2x , 3) = (8 , 3)$, then x = ...



18) If the diagonal length of a square is 6 cm, then its area = ... cm^2 .

19) The scalene triangle has .... line(s) of symmetry.

20) If we add 5 to number y, then we get the number ....

21) The area of rhombus with diagonal lengths 8 cm and 6 cm = ... cm^2.

22) The natural numbers less than 3 are ....

3 23) Use the commutative and associative property to find the result:

4 × 17 × 25

....

24) Solve the following equation:

$3x - 5 = 10$ (show the steps) (where $x \in N$)

....

25) In the coordinate plane:

a) Draw figure ABC where A (3 , 5) , B (6 , 5) , C (3 , 2)

B) Draw the image of △ ABC by reflection in $\overline{AC}$.



7 Alex. Governorate – El Montazah Zone – Maaly Language School

1 Choose the correct answer:

1) The sum of 7 and twice the number x = ... ($x - 7$ or $7 - 2x$ or $2x + 7$ or $7 - x$)

2) The smallest natural number is .... (0 or 2 or 1)

3) If 213 + 87 = 87 + 213 is called .... property. (commutative or associative or closure)

4) The set of even numbers 𝔼 ∩ the set of odd numbers 𝕆 = ... (ℕ or 𝔼 or 𝕆 or ∅)

5) The area of a square with side length 5 cm = ... (20 cm or 20 cm² or 25 cm or 25 cm²)

6) x, y are two numbers, their sum is 20, then x = ... (20 + y or y – 20 or 20 – y)

7) 7 – 5 .... ℕ. (∈ or ∉ or ⊂ or ⊄)

8) The perimeter of equilateral Δ with side length (L) = ...
(L + 3 or 3L or 6 + L or 6L)

9) {0} .... the set of counting numbers. (∈ or ∉ or ⊂ or ⊄)

10) If the lengths of the two right sides in the right-angled triangle are 6 cm and 8 cm, then its area = ... cm². (48 or 24 or 28)

11) The circle with radius 15 cm, then its circumference = ... π. (15 or 25 or 30 or 45)

12) The number of the axes of symmetry of the square is .... (2 or zero or 1 or 4)

13) The geometric transformation is called ....
(translation or relation or reflection)

14) The set of natural numbers less than 2 is .... ({0,1} or {0} or {0,1, 2} or {1, 2})

2 Complete the following:

15) The area of a rhombus whose diagonals are 6 cm and 8 cm = ... cm².

16) The circle with diameter length 14 cm, then its circumference = ...

17) If x is an odd number, then (x + 1) is .... number.

18) Circumference of circle + diameter = ...

19) From the opposite figure (M, N) .... < ....

20) The area of the parallelogram whose base length is 10 cm and its corresponding height is 9.6 cm, then its area = ...

21) The additive neutral element added to 99 = ...

22) 20, 17, 14, 11, ... , ... (Complete in the same pattern.)

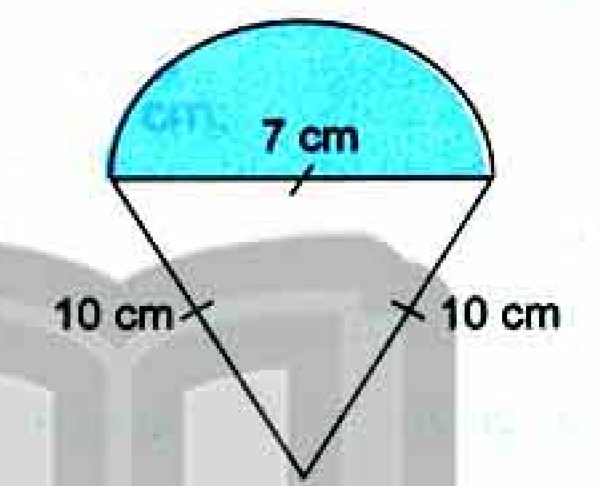
3 23) Draw Δ ABC if A (2, 2) B (6, 5), C (6, 9) and find its image by refection on $\overleftrightarrow{BC}$.

....

24) Find the S.S in ℕ: $2x + 9 = 21$

....

25) Find the perimeter of the following figure: $\pi = \frac{22}{7}$



4 *Represent the following data by histogram:*

Sets	10–	20–	30–	40–	Sum
Frequency	10	12	18	10	50

8 Qaluobia Governorate – Maths Supervision – Experimental Official L. Schools

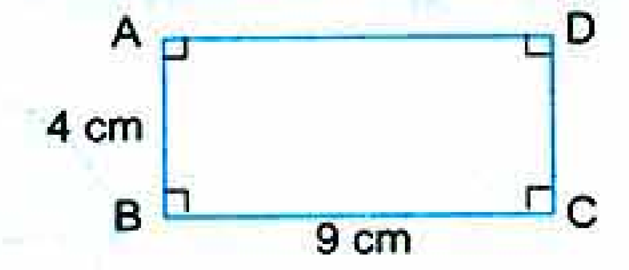
1 Choose the correct answer:

1) The smallest natural number is .... (zero or 1 or 2 or 10)

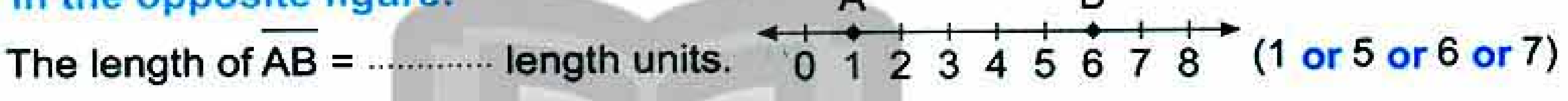
2) (8 ÷ 4) .... N. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

3) The area of square whose diagonal length 6 cm = ... cm². (12 or 18 or 81 or 36)

4) The area of the rectangle ABCD = ... cm². (5 or 13 or 18 or 36)



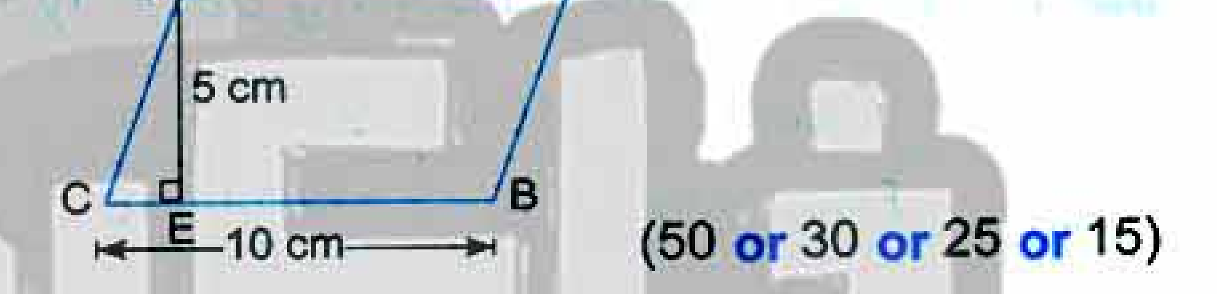
5) In the opposite figure:
The length of $\overline{AB}$ = ... length units. (1 or 5 or 6 or 7)



6) The circumference of the circle whose diameter length is 8 cm = π × .... cm. (4 or 8 or 16 or 10)

7) (93 + 7) – (7 + 93) = ... (zero or 10 or 100 or 1000)

8) In the opposite figure:
The area of the parallelogram ABCD = ... cm². (50 or 30 or 25 or 15)

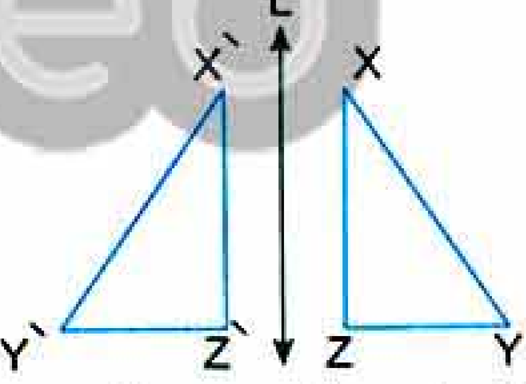


9) If we add 3 to the number x, we get .... ($3x$ or $3 + x$ or $2x + 3$ or $2x$)

10) The area of a rhombus with diagonal lengths 6 cm and 8 cm = ... cm². (24 or 14 or 34 or 44)

11) 5 ÷ zero = ... (zero or 1 or 5 or is not possible)

12) In the opposite figure:
Δ XYZ is transformed to Δ X\` Y\` Z\`, then this transformation is called ....



(reflection or translation or rotation or otherwise)

13) The following table shows the recorded temperatures in 40 cities in a day.

Temp.	20–	22–	24–	26–	28–	Total
No. of cities	7	9	11	8	5	40

a) The number of cities with temperatures less than 24 degrees celsius .... cities. (11 or 16 or 27 or 35)

b) The number of cities with temperatures 26 degrees or more is .... (8 or 5 or 13 or 34)

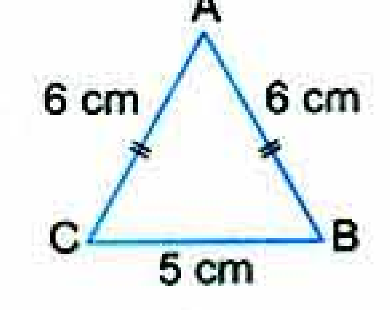
2 Complete the following:

14) a + zero = zero + ...

15) Complete in the same pattern:

2 , 4 , 8 , ... , ...

16) In the opposite figure:



The perimeter of Δ ABC = ... + ... + ...

= .... cm.

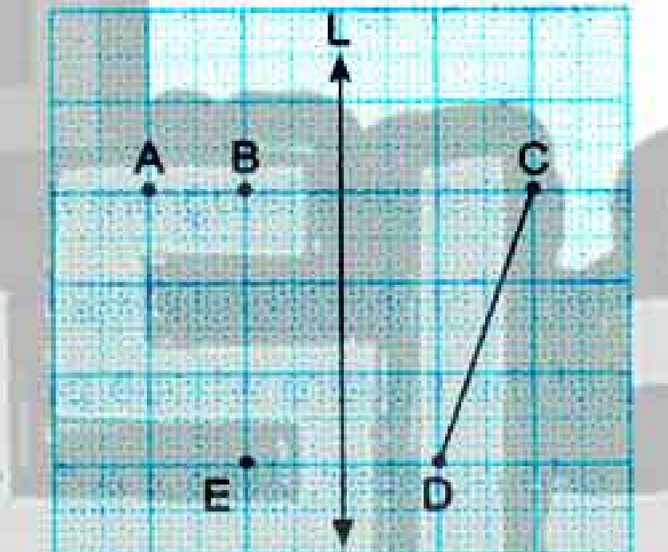
17) If 9 × 13 = 13 × y , then y = ...

18) The diagonals of a square are .... and ....

19) The coloured sector in the figure represents .... of the circle.

20) The number of symmetry axes of an equilateral triangle = ...

21) The image of the line $\overline{CD}$ by reflection across L is ....



3 22) Use the distributive property to find:

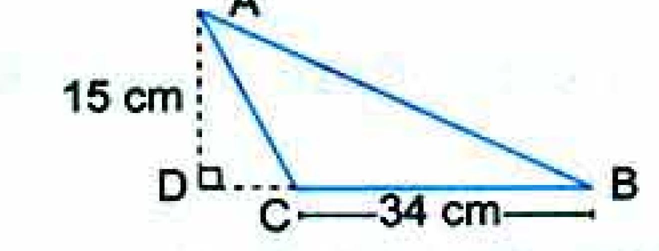
45 × (10 + 2) = ...

23) Solve the following equation:

$x + 3 = 12$, where ($x \in N$).

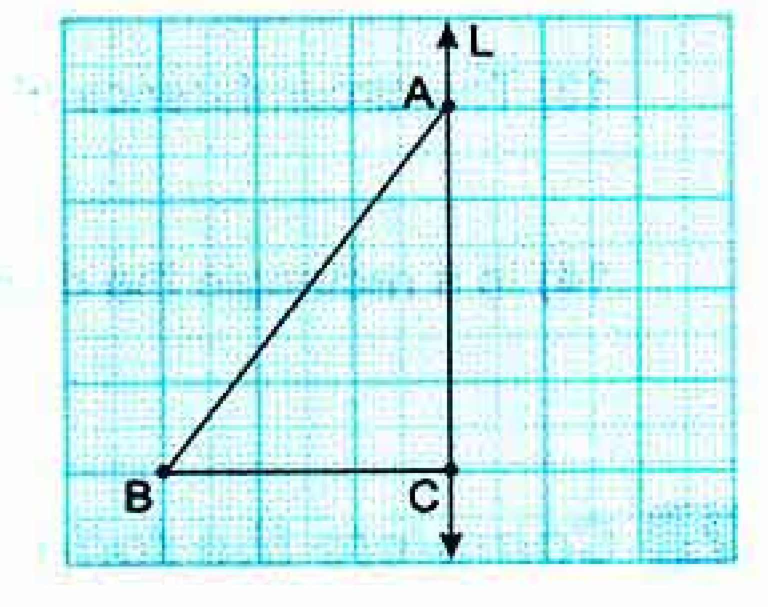
24) In the opposite figure:

Find the area of Δ ABC.



25) In the opposite figure:

Draw the image of Δ ABC by reflection across (L).





9 Gharbia Governorate – Gharbia Educational Directorate - Maths Supervision

1 Choose the correct answer:

1) $\mathbb{E} \cap \mathbb{P} =$ .... ({ 0 } or { 1 } or { 2 } or { 2 , 3 })

2) The number of lines of symmetry of square is .... (4 or 3 or 2 or 1)

3) The radius length of the circle whose circumference is 88 cm = ... cm. ($\pi = \frac{22}{7}$)
(7 or 14 or 21 or 28)

4) The perimeter of the equilateral triangle whose length is x cm = ... cm.
($x + 4$ or $x \div 4$ or $3x$ or $x - 4$)

5) The opposite table shows the marks of 21 pupils, then the number of pupils get less, than 30 is ....

Sets	10–	20–	30–
Frequency	5	7	9

(5 or 12 or 9 or 12)

6) { 0 } .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

7) If the area of the parallelogram is 20 cm² and its base length is 5 cm, then the corresponding height = ... cm. (4 or 5 or 8 or 10)

8) The area of the square whose perimeter is 32 cm = ... cm². (64 or 32 or 16 or 8)

9) If x is an odd number, then $x + 1$ is a/an .... number. (odd or even or prime)

10) The type of the opposite transformation is a ....
(translation or reflection or rotation)

11) The multiplicative neutral element is .... (0 or 1 or 10 or 100)

12) The area of the triangle whose base length is 5 cm and height is 8 cm = ... cm².
(40 or 13 or 20 or 10)

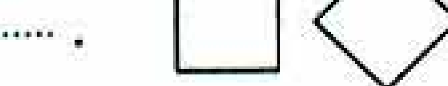
13) The circumference of the circle whose diameter is 14 cm = ... cm. ($\pi = \frac{22}{7}$)
(11 or 44 or 88 or 22)

14) In a rectangle the diagonal divides it into two .... triangles.
(isosceles or congruent or equilateral)

2 Complete the following:

15) (5 × 52) × 17 = (52 × ....) × 5

16) The type of the opposite transformation is ....



17) The set of natural numbers less than 3 is ....





18) The area of the rhombus whose side length is 10 cm and corresponding height 9.6 cm is .... cm^2.

19) The number of line of symmetry of a rectangle is ....

20) 13 , 16 , 19 .... (in the same pattern)

21) If we add 3 to double of number x we get ....

22) If the number of pupils in a class is 40 pupils by using opposite pie chart, the number of girls is ....



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3 23) a) Use the properties to find:

$8 \times 117 \times 125$

b) Solve an equation:

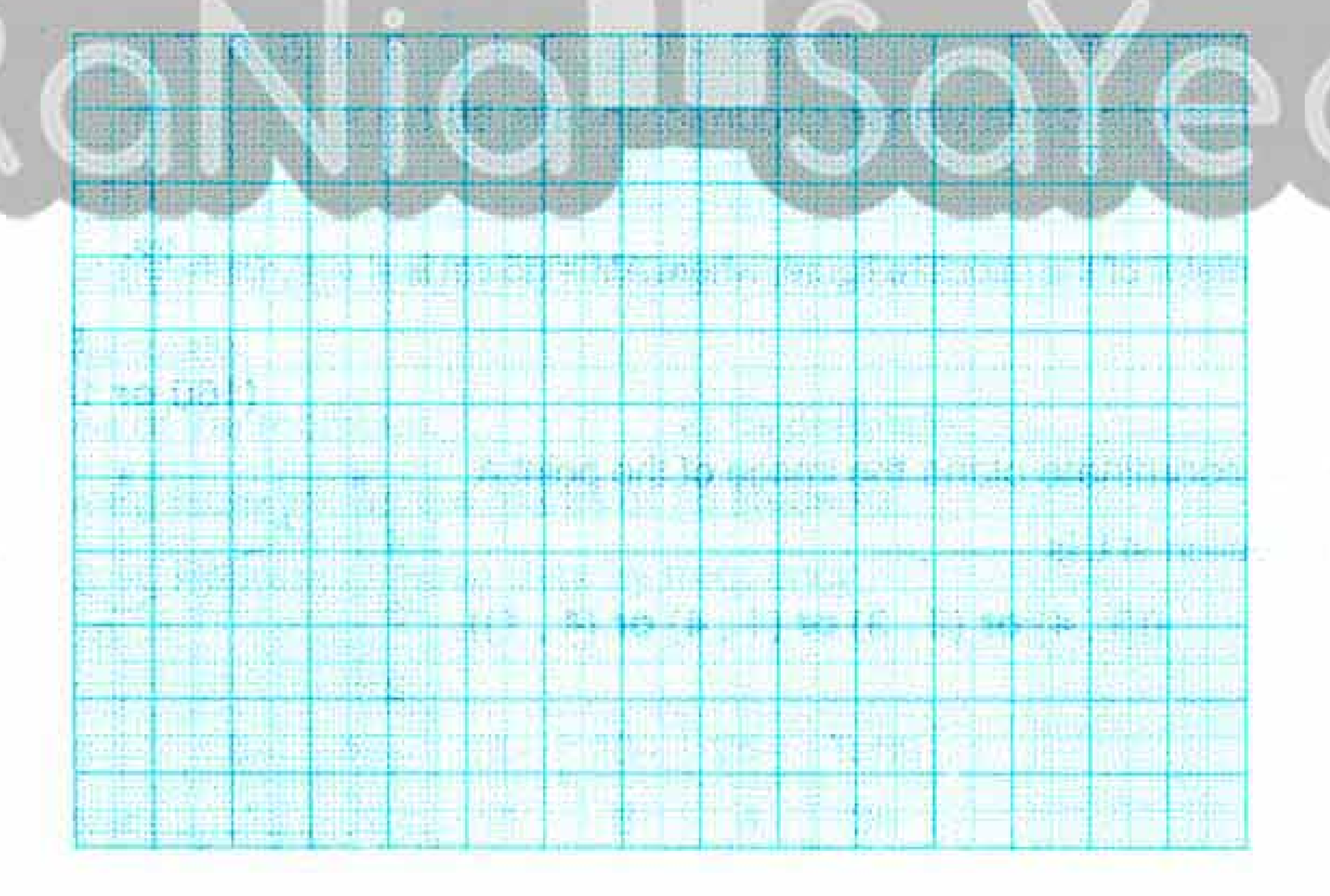
$2x + 9 = 21$

24) **Which is greater in area?**

a) A rhombus in which the length of its diagonals are 8 cm and 6 cm or a square whose diagonal length is 8 cm.

b) In the coordinate plane draw the figure ABCD where

A (2 , 5) , B (2 , 2) , C (5 , 2) , D (5 , 5)









10 Dakahlia Governorate – Maths Supervision

1 Complete each of the following:

1) The set of natural numbers less than 4 is ....

2) The multiplicative neutral element in ℕ is ....

3) If 8 × 25 = 25 × a, then a = ...

4) If the sum of two numbers is 10 and one of them is x, then the other = ...

5) The area of a square whose diagonal length is 6 cm = ... cm^2.

6) If the point A lies on the axis of reflection L, then its image by reflection in L is ....

7) The number of axes of symmetry of a parallelogram is ....

2 Choose the correct answer:

8) 5 – 7 .... ℕ (∈ or ∉ or ⊂ or ⊄)

9) (x – 15) .... (x – 14) where x is a natural number more than 17. (> or < or ≤ or ≥)

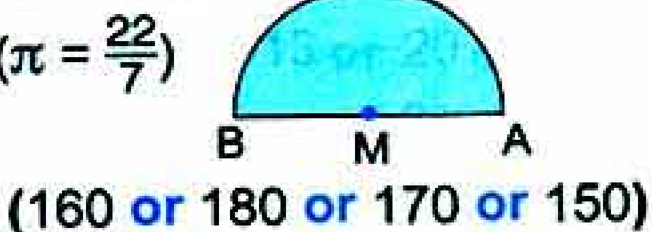
10) If 35 + (12 + x) = (35 + 12) + 19, then x = ... (35 or 12 or 19 or 47)

11) 1 , 4 , 9 , 16 , ... (in the same pattern) (23 or 24 or 25 or 36)

12) If we add 3 to the number x, we get .... (3 + x or 3 x or 2 x + 3 or 2 x)

13) On the number line:

The length of $\overline{AB}$ = ... length unit. (2 or 5 or 4 or 6)



14) The radius of a circle whose circumference is 88 cm = ... cm. (11 or 13 or 14 or 22)

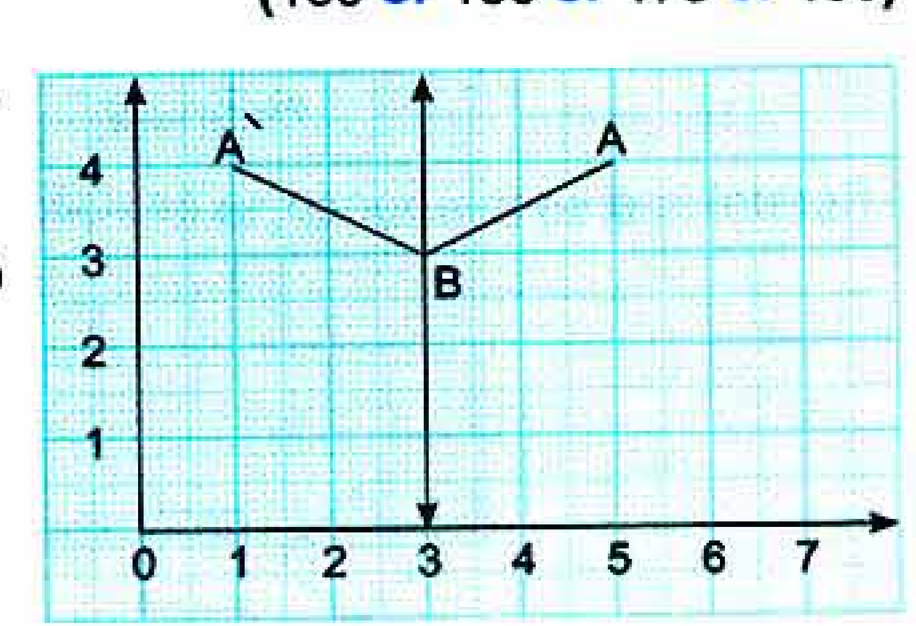
15) The perimeter of the opposite figure, where AM = 35 cm is = ... ($\pi = \frac{22}{7}$)

B M A

(160 or 180 or 170 or 150)

16) On the coordinate plane the image of the point A by reflection in L is ....

((5 , 4) or (3 , 3) or (1 , 4) or (4 , 1))



17) The area of a triangle of base length 12 cm, its height 5 cm = ... cm^2.
(60 **or** 30 **or** 17 **or** 34)

18) The area of the square whose perimeter is 32 cm = ... cm^2. (128 **or** 32 **or** 64 **or** 1024)

19) A parallelogram, in which, the lengths of two adjacent sides are 5 cm and 7 cm, the length of the smaller height = 4 cm, then its area = ... cm^2. (28 **or** 10 **or** 20 **or** 14)

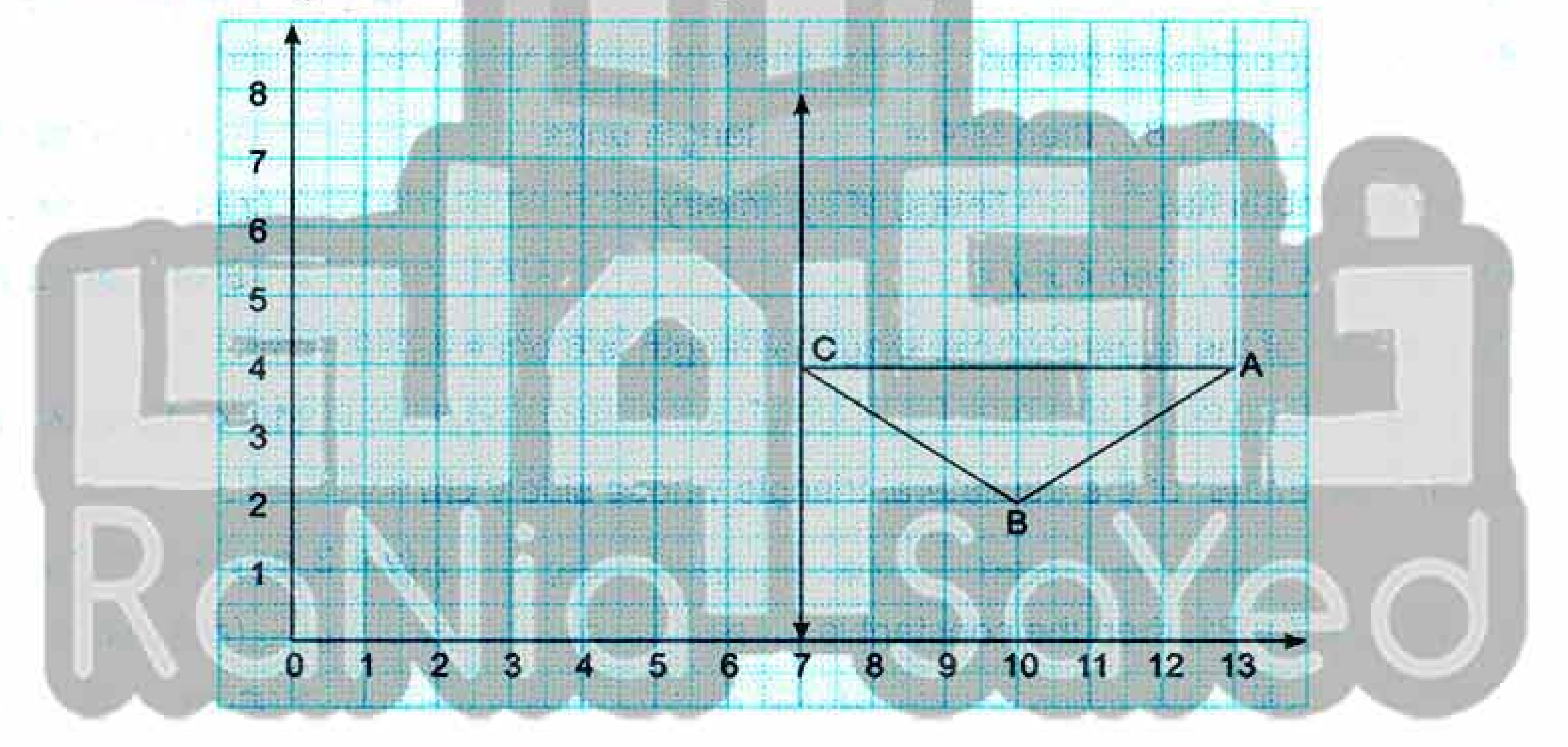
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3 **a) Use the properties of commutation and association in ℕ to find the result of:**

872 + 199 + 128 + 801 (Write the used property.)

b) Solve the equation: $3x + 8 = 29$, $x \in \mathbb{N}$

c) On the coordinate plane, if L is the axis of reflection for the triangle ABC, draw the image of Δ ABC in the straight line L.

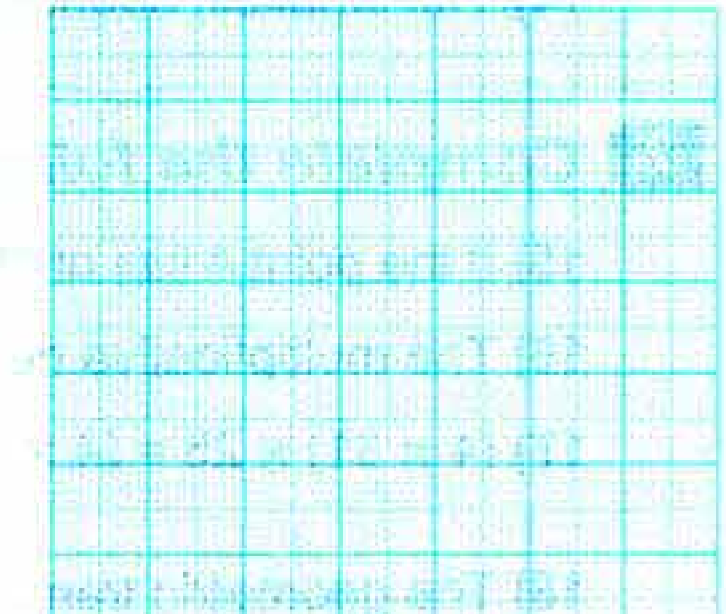


d) A rhombus in which the lengths of its diagonals are 12 cm and 16 cm and its height is 9.6 cm. Calculate:

1) The area of the rhombus. 2) Its perimeter.

e) The following table shows the marks of 35 students in maths test. Represent these data by frequency polygon.

Sets	5–	10–	15–	20–	25–	Total
Frequency	5	9	11	6	4	35



11 Kafr El Sheikh Governorate – Maths Supervision

1 Choose the correct answer:

1) The set of even numbers (𝔼) ∩ the set of odd numbers (𝕆) = ...
(0 or 1 or 2 or ∅)

2) If a circumference of a circle is 22 cm, then the diameter length = ... cm.
(3.5 or 7 or 8 or 11)

3) If $x + 5 = 15$, then $x - 1$ = ... (8 or 9 or 10 or 11)

4) The triangle whose base length is 8 cm and corresponding height is 5 cm.
Its area = ... cm². (13 or 20 or 26 or 40)

5) If X = { x : $x \in \mathbb{N}$, $x < 3$}, then X = ... ({ 1 } or {0 , 1} or {0 , 1 , 2} or ∅)

6) On the coordinate plane:
M (1 , 2) , N (1 , 8) , then MN = ... length units. (2 or 5 or 6 or [illegible])

7) The rhombus has .... line(s) of symmetry. (zero or 1 or 2 or 4)

8) If $x = 2$, y = 3 , then 4 x y = ... (6 or 9 or 12 or 24)

9) The area of the square whose diagonal length is 6 cm = ... cm².
(12 or 18 or 24 or 36)

10) The perimeter of the equilateral triangle whose side y cm = ...
(y + 3 or y + 6 or 3 y or 6 y)

11) If 2 a + 7 = 21, then the constant is .... (a or 2 a or y or 7)

12) $\frac{0}{7}$ .... ℕ. (∈ or ∉ or ⊂ or ⊄)

13) The product of the number k and 6 is 24, then the number k = ...
(30 or 24 or 6 or 4)

14) The smallest counting number is .... (0 or 1 or 2 or 3)

---

2 Complete the following:

15) If the point A lies on the axis of reflection L, then its image by reflection in L is ....

16) The multiplicative neutral element in ℕ is ....

17) (4 × 31) × 25 = (4 × ....) × 31 = ...

18) The geometric transformation [triangle] [triangle] is ....

19) $\dfrac{\text{the circumference of the circle}}{\text{the length of the diameter}} = \ldots\ldots\ldots\ldots$.

20) Write the set which represents the points on the number line:



....

21) If we multiply the number x by 5 and subtract the product from 4, we will get the expression ....

22) The area of the rhombus whose diagonal lengths are 6 cm and 8 cm = ... cm^2

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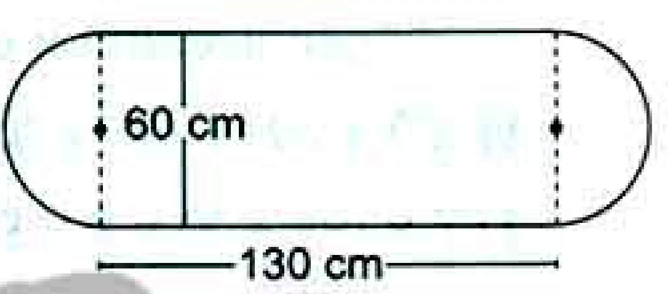
3 **23) a) Solve the equation:**

$2x + 9 = 21$, $x \in \mathbb{N}$

b) Use the properties of operations in $\mathbb{N}$ to find:

$45 \times 127 - 45 \times 27$

24) Calculate the perimeter of the opposite figure. ($\pi = 3.14$)



....

25) On the coordinate plane draw the following points A (3 , 5) , B (5 , 5) and C (3 , 2).

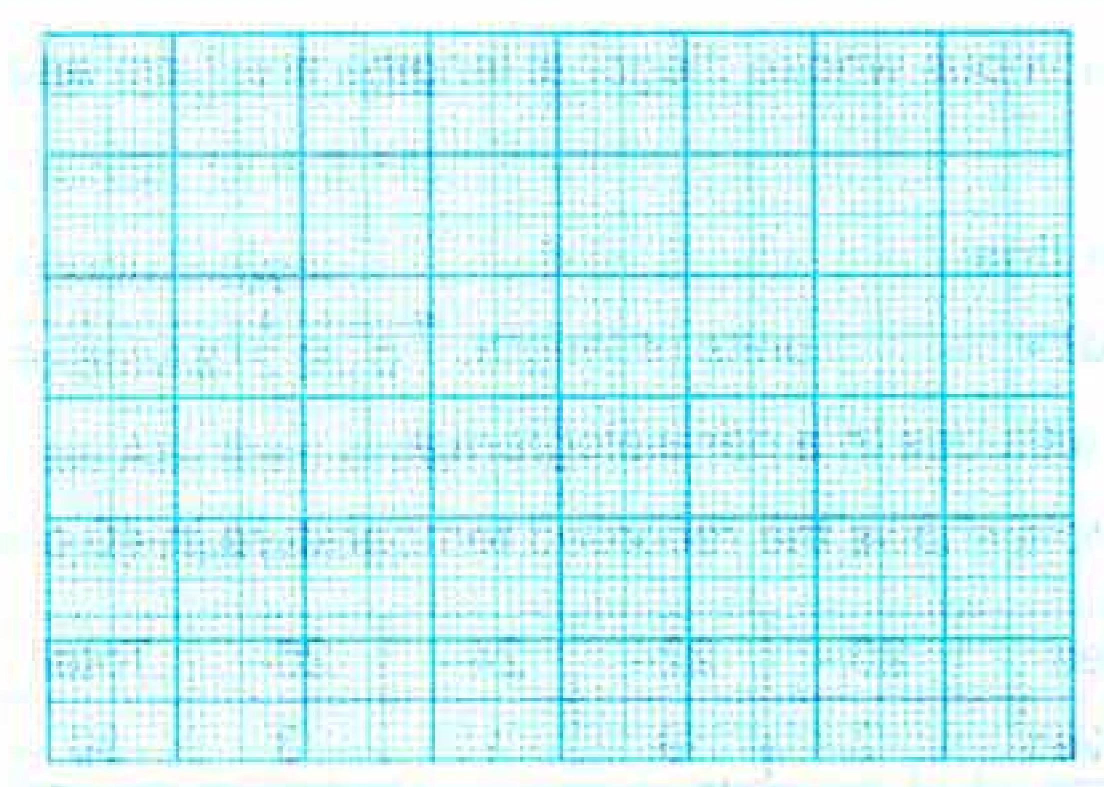
a) Find the length of $\overline{AC}$.

b) Draw the image of Δ ABC by reflection across $\overleftrightarrow{AC}$.

26) The following table represents the marks of 50 students in the maths exam in a month where the full mark is 50:

The sets	10–	20–	30–	40–	Total
Frequency	10	12	18	10	50

Draw the frequency polygon which represents the given data.



12 Damietta Governorate – Official Language Schools

1 Choose the correct answer:

1) The smallest counting number is .... (0 or 1 or 2 or 3)

2) $\frac{1}{2}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

3) The symbolic expression of subtracting 5 from the number x is ....

($5x$ or $5 - x$ or $x - 5$ or $x + 5$)

4) The number of axes symmetry of the square = ... (1 or 2 or 3 or 4)

5) Area of a parallelogram = ...

($\frac{1}{2}$ × base × height or base × height or $\frac{1}{2}$ the product of its diagonal lengths or diagonal length × diagonal length)

6) (93 + 87) – (87 + 93) = ... (zero or 87 or 180 or 186)

7) 7 × (98 + 3) = 7 × 98 + 7 × 3 (.............. property)

(associative or commutative or neutral additive element or distributive)

8) The area of opposite triangle = ... cm². (12 or 24 or 36 or 48)

6 cm
4 cm

9) The area of the square whose diagonal is 6 cm = ... cm². (6 or 18 or 36 or 42)

10) 220 candidates have applied for a test to hire male and female anchorpersons in the television, if the opposite pie graph represents the given data, then the number of male candidates = ... males.

males
females

(22 or 55 or 110 or 220)

11) The area of a rhombus whose diagonal lengths are 7 cm and 9 cm = ... cm².

(31 or 31.5 or 36 or 63)

12) On the number line:

The length of $\overline{AB}$ = ... units of length. (2 or 4 or 5 or 6)

A B
0 1 2 3 4 5 6 7 8

13) The number of altitudes in a parallelogram = ... (1 or 2 or 3 or 4)

14) The following table shows the recorded temperature in 40 cities on a day:

Temperatures	20–	22–	24–	26–	Total
Number of cities	7	9	11	3	30

The number of cities with temperature less than 24 degrees. (16 or 27 or 20 or 7)

2 Complete the following:

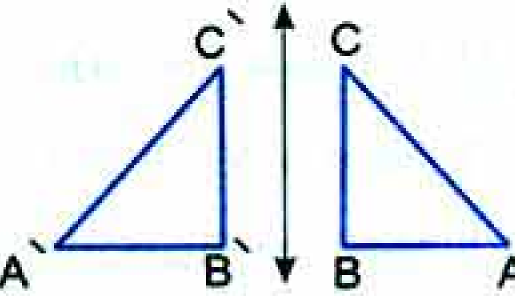
15) 2, 4, 8, ... , 32. (in the same pattern)

16) (4 × 31) × 25 = (31 × 4) × 25 .... property.

17) 999 + 1 + 487 = (999 + 1) + 487 .... property.

18) x , y are two numbers, the greater number is 3 more than the other, if the smaller is y, then x = ...

19) The opposite transformation is ....



20) The number of axes of symmetry of the equilateral triangle = ...

21) The area of the parallelogram whose base length is 60 cm and height is 40 cm = ... cm^2

22) If $x - 3 = 5$, $x \in \mathbb{N}$, then x = ...

3 Answer the following:

23) Using the properties of multiplication in $\mathbb{N}$, **Find:**

The value of: 2 × 347 × 5 (Tell the property used)

= .... (.................................)

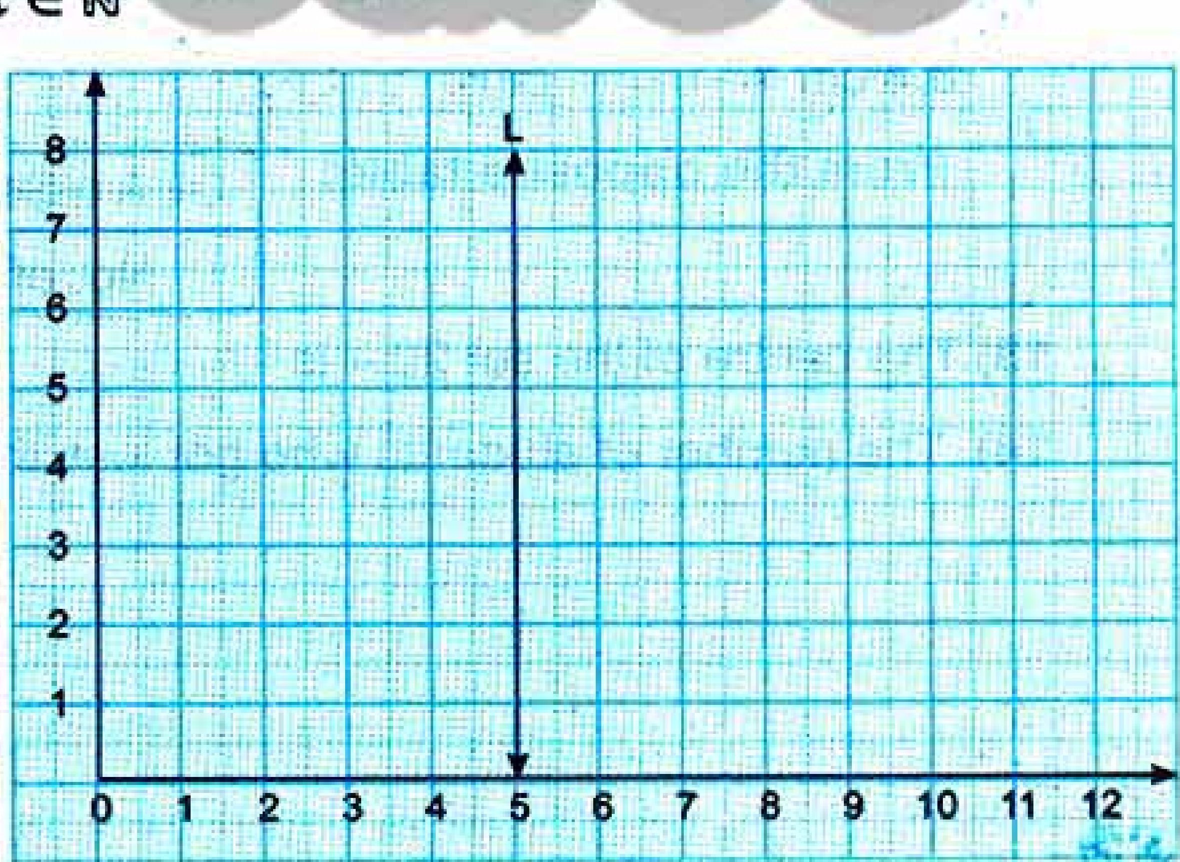
= .... (.................................)

= ....

24) **Solved the equation:** $x + 3 = 12$, $x \in \mathbb{N}$

25) A circle of diameter length 10 cm. Find its circumference. (π = 3.14)

26) In the Cartesian coordinates: Determine the points A (7 , 2), B (9 , 6), then draw $\overline{AB}$, then draw its image by reflection across L.



13 Sharkia Governorate – Diarb Negm Educational Zone – El Sweedy Gov. Lang. School

1 Choose the correct answer:

1) (3 – 5) .... ℕ. (∈ or ∉ or ⊂ or ⊄)

2) The set of even number (𝔼) ∩ the set of prime numbers (ℙ) = ...
(∅ or 0 or N or { 2 })

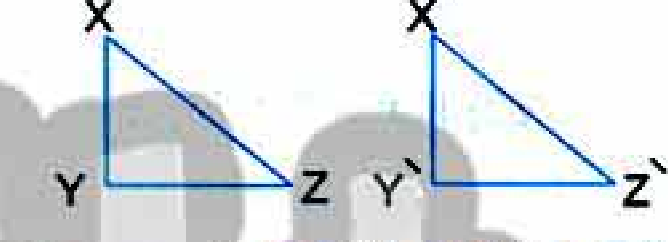
3) 7 × 98 = 7 × 100 – 7 × .... (98 or 2 or 100 or 7)

4) If the side length of an equilateral triangle is L cm, then the mathematical relation between its perimeter and its side = ... (L + 3 or 4 L or L + 4 or 3 L)

5) If x – 3 = 5, then 2 x = ... (16 or 8 or 4 or 6)

6) The number of axes of symmetry of the isosceles triangle = ... (1 or 2 or 3 or 4)

7) In the figure below:
XYZ is transformed into X\`Y\`Z\`, then this transformation is called .... (reflection or translation or rotation)



8) A circle of diameter 5 cm, then circumference = ... π cm. (5 or 10 or 22 or 7)

9) The area of the square whose diagonal length is 6 cm = ... cm². (9 or 36 or 24 or 18)

10) The area of a triangle with base length 20 cm and its corresponding height is 7 cm = ... cm². (140 or 70 or 280 or 350)

11) If the circumference of a circle 22 cm, then its radius = ... cm. ($\pi = \frac{22}{7}$)
(22 or 11 or 7 or 3.5)

12) The area of a parallelogram whose base length is 10 cm and corresponding height is 8.4 cm = ... cm². (0.84 or 840 or 42 or 84)

From the opposite table:

Sets	10–	20–	30–	Total
No. of pupils	7	13	5	25

13) The centre of the set 20 – is .... (15 or 20 or 25 or 30)

14) The number of students who got less than 30 marks = ... (20 or 13 or 7 or 29)

2 Complete the following:

15) The multiplicative neutral element in ℕ is ....

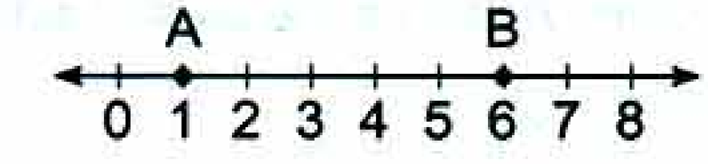
16) If x is an odd number, then $(x + 3)$ is .... number.

17) 2 , 4 , 8 , 16 , ... (in the same pattern)

18) A man's age now is x years, then this age after 3 years = ...

19) In the opposite number line:

The length of $\overline{AB}$ = ... units.



20) If the area of a square is 25 cm², then its side length =.......... cm.

21) 28 + 57 = 57 + 28. (.................. property)

22) The shaded sector of [circle] represents .... of the circle.

3 Answer the following:

23) Using the properties of the operations in ℕ, find the result: of 8 × 73 × 125 = ...

....

24) Find the solution set of: $3x + 2 = 8$, where $x \in ℕ$ ....

....

25) Which is greater in area:

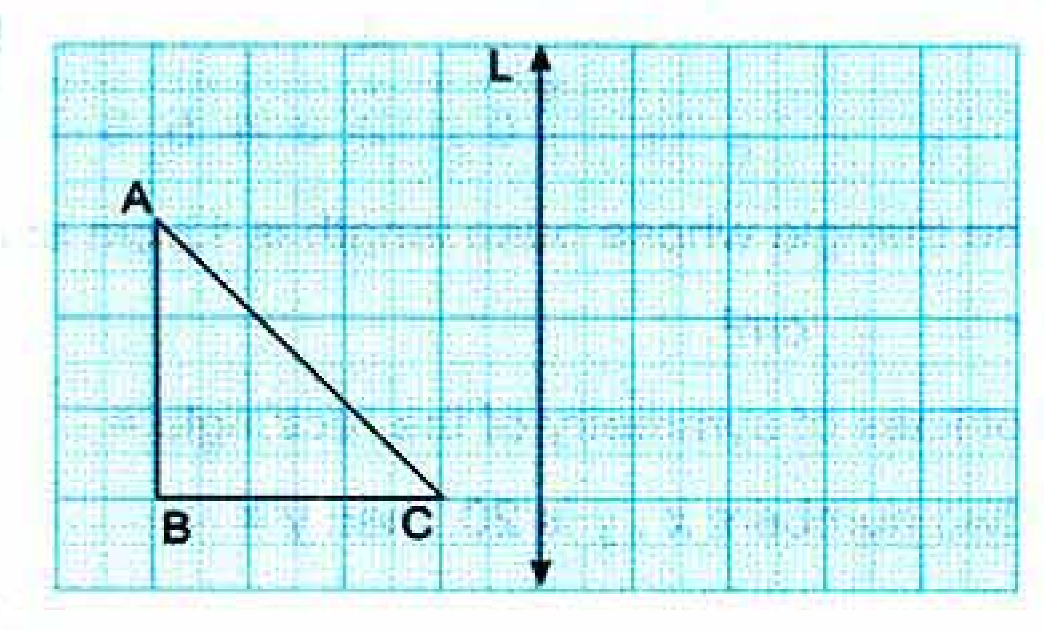
A rhombus whose two diagonal lengths are 6 cm and 8 cm or a square whose diagonal length is 8 cm.

....

26) In the coordinate plane:

If L is the axis of reflection of the triangle ABC.

Draw its image by reflection in L.



14 Port Said Governorate – Educational Directorate – Maths Inspectorate

1 Complete each of the following:

1) The opposite transformation is called ....

2) The set of natural numbers which are less than 2 is { .... }.

3) If the point A lies on the axis of reflection (L), then its image by reflection across (L) is = ...

4) (4 × 31) × 25 = (31 × ....) × 25

5) The area of the square whose diagonal length is 6 cm = ... cm^2.

6) The symbolic expression for "x multiplied by 5" is ....

7) 13 , 16 , 19, ... (in the same pattern)

8) The following table shows the marks of 50 pupils, complete the following table:

Sets	10–	20–	....	40–	Total
Frequency	10	12	18	10	50

2 Choose the correct answer:

9) 7 – 5 .... ℕ (∈ or ∉ or ⊂ or ⊄)

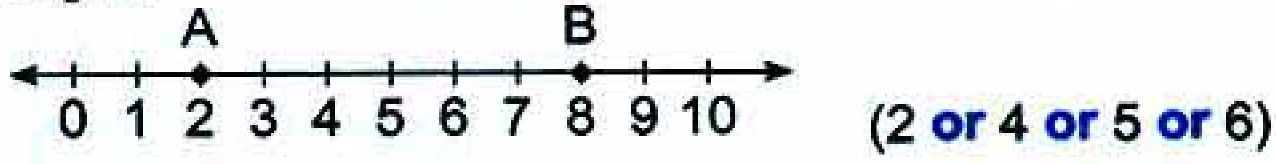
10) The set of even numbers (𝔼) ∩ the set of odd numbers (𝕆) = ... (𝕆 or 𝔼 or ℕ or ∅)

11) If we add 3 to twice a number "x", then we get the number ....
($3x$ or $3 + x$ or $2x + 3$ or $2x$)

12) 2 456 .... 3 645 (> or < or = or otherwise)

13) The area of the rhombus whose diagonals are 12 cm and 16 cm = ... cm^2.
(59 or 96 or 56 or 192)

14) The length of $\overline{AB}$ = ... units length.



(2 or 4 or 5 or 6)

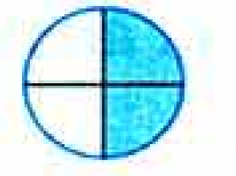
15) The area of the triangle whose base length is 12 cm and corresponding height 5 cm = ... cm^2. (30 or 60 or 17 or 34)

16) The number of lines of symmetry of the rectangle = ... (1 or 2 or 3 or 4)

17) If the sum of two numbers x , y is 20, then y = ...
($20 + x$ or $20 - x$ or $x - 20$ or 8)

18) The area of the parallelogram whose base length is 8 cm and corresponding height is 5 cm = ... cm^2. (40 or 13 or 26 or 20)

19) The shaded sector represented in the opposite figure = ... the circle. ($\frac{1}{2}$ or $\frac{1}{3}$ or $\frac{1}{4}$ or 1)



20) (93 + 7) – (7 + 93) = ... (1000 or 100 or 10 or 0)

21) If $4x = 20$, $x \in \mathbb{N}$, then x = ... (5 or 4 or 3 or 2)

22) The smallest natural number is .... (0 or 1 or 2 or 3)

---

3 **23)** Find the solution set of the equation: (where $x \in \mathbb{N}$)

$4x - 7 = 33$

24) The circle whose diameter length is 14 cm. Calculate its circumference. ($\pi = \frac{22}{7}$)

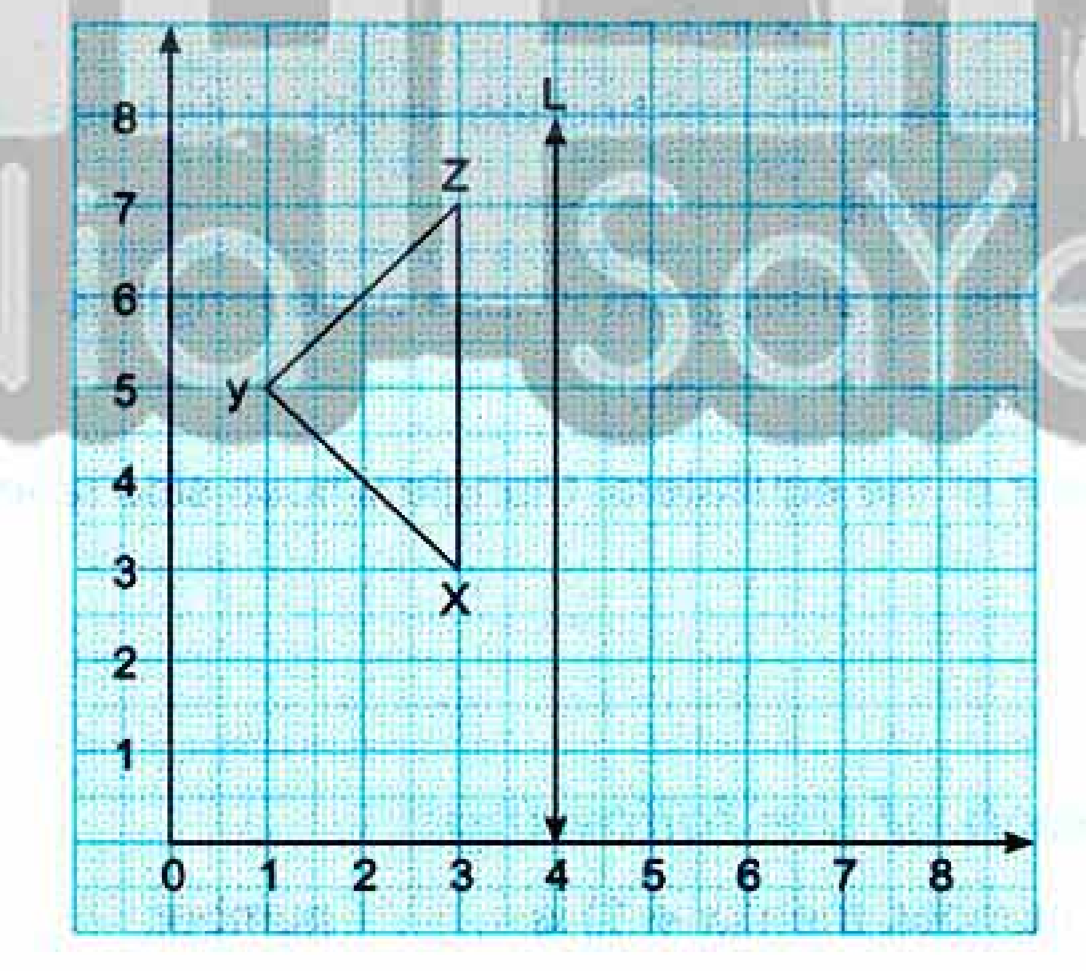
25) By using the properties of addition in $\mathbb{N}$, find the result of:

53 + 76 + 47 + 24

26) **In the opposite coordinates plane:**

If L is the axis of reflection for the figure XYZ.

Draw its image by reflection in L.



15 Ismailia Governorate – Directorate of Educational – Al-Manar Language School

1 Choose the correct answer:

1) $\{0, 1, \frac{8}{4}\}$ .... ℕ. (∈ or ∉ or ⊂ or ⊄)

2) The area of square whose diagonal length is 6 cm = ... cm². (18 or 36 or 24 or 12)

3) ℕ – Set of counting numbers = ... (∅ or ℕ or 𝔼 or { 0 })

4) The smallest prime number is .... (0 or 1 or 2 or 3)

5) Subtract 3 from twice the number M is written as ....

(3 + 2M or 2M – 3 or 3 – 2M or M – 3)

6) Which of the following represents rotation? .... (MATH / MATH (upside down and mirrored) or MATH / MATH (rotated) or MATH / MATH)

7) The rhombus has .... line(s) of symmetry. (0 or 1 or 2 or 3)

8) The area of the rhombus whose diagonal lengths are 12 cm and 10 cm = ... cm². (12 or 48 or 120 or 60)

9) The diameter length of the circle whose circumference is 7 π cm = ... cm.

(7 or 3.5 or 14 or 22)

10) If $x = 2$, $x \in$ ℕ, then $2x + 1$ = ... (2 or 3 or 4 or 5)

11) If area of a triangle is 40 cm² and the length of its base is 10 cm, then the corresponding height = ... cm. (4 or 8 or 5 or 16)

12) The area of the parallelogram whose base length is 6 cm and its corresponding height is 4.5 cm = ... cm². (13.5 or 27 or 18 or 36)

13) The perimeter of the equilateral triangle whose side length is L cm = ...

(L + 3 or 3L or 6 – L or 6 L)

14) ℙ – 𝕆 = ... (ℙ or { 0 } or { 2 } or ℕ)

2 Complete each of the following:

15) If x an odd number, then $(x + 1)$ is .... number.

16) 1 , 3 , 6 , 10 , 15 .... (in the same pattern)

17) Two numbers x and y, their sum is 18, then y = ...

18) If 2 m – 1 = 7 , then m = ...

19) The additive neutral element in ℕ is ....

20) The opposite geometric transformations is ....

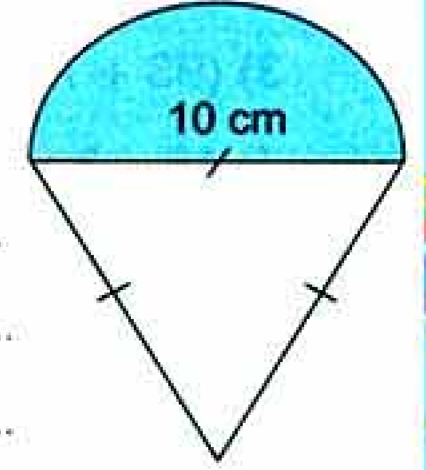


21) The triangle whose side lengths are 3 cm, 4 cm and 3 cm has .... lines of symmetry.

22) Area of a triangle = base × height + ...

3 *Answer the following:*

23) Calculate the perimeter of the opposite figure. ($\pi = 3.14$)



....

....

....

24) Use the distributive property to find: 37 × 101

....

....

25) Solve the equation: $2x + 3 = 13$

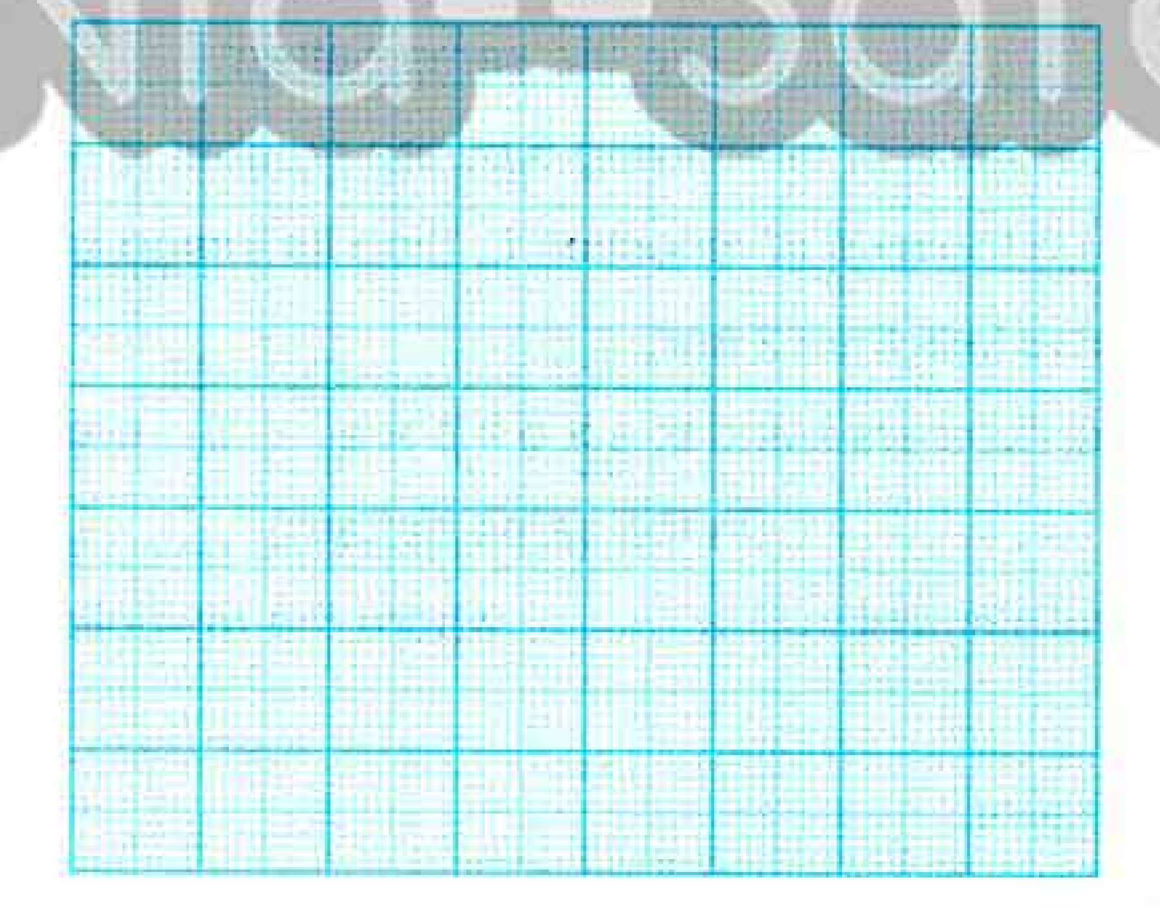
....

....

26) The following data represent marks in a test for students in grade five:

Sets	10–	15–	20–	25–	Total
Frequency	7	13	15	5	40

Represent these data using frequency polygon.



16 Suez Governorate – Directorate of Education – Mathematics Inspectorate

1 Choose the correct answer:

1) The smallest natural number is .... (0 or 1 or 2 or 10)

2) A circle of diameter 28 cm, its circumference = ... cm. ($\pi = \frac{22}{7}$) (22 or 44 or 88 or 56)

3) (93 + 7) – (7 + 93) = ... (0 or 10 or 100 or 1000)

4) 15 – 3 × 6 ÷ 2 + 1 = ... (2 or 9 or 37 or 7)

5) The area of square whose perimeter 32 cm = ... cm². (128 or 32 or 64 or 1024)

6) 75 + 89 = 89 + ... (75 or 100 or 0 or 89)

7) { } .... ℕ. (∈ or ∉ or ⊂ or ⊄)

8) If $x - 3 = 5$, $x \in$ ℕ , then x = ... (2 or 6 or 7 or 8)

9) { 0 } .... ℕ. (∈ or ∉ or ⊂ or ⊄)

10) The set of even numbers (𝔼) ∩ the set of prime numbers (ℙ) = ... (ℙ or ℕ or ∅ or {2})

11) 2456 ☐ 3645 (> or < or = or ≥)

12) 7 – 5 .... ℕ. (⊂ or ⊄ or ∉ or ∈)

13) (4 × 31) × 25 = (31 × ....) × 25 (2 or 4 or 3 or 5)

14) On the number line:

The length of $\overline{AB}$ = ... length units. (2 or 4 or 5 or 6)

(Number line: 0 1 2 3 4 5 6 7 8, with A at 2 and B at 6)

2 Complete each of the following:

15) 100 , 85 , 70 .... , ... (in the same pattern)

16) The symbolic expression of multiplying 5 by the number x is ....

17) If the point A lies on the axis of reflection L, then its image by reflection in L ....

18) The natural numbers less than 2 are ....

19) For any two natural numbers a and b: a × b = b × a .... property.

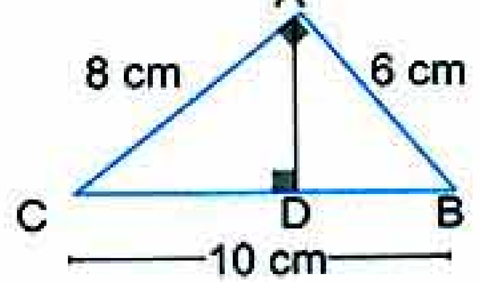
20) 8 , 16 , 24 , ... , ... (in the same pattern)

21) The additive neutral element in ℕ is .... where the multiplicative neutral element in ℕ is ....

22) In the opposite figure:

ABC is right-angled triangle at A, $\overline{AD} \perp \overline{BC}$,

then the length of $\overline{AD}$ = ...







3 Find the result:

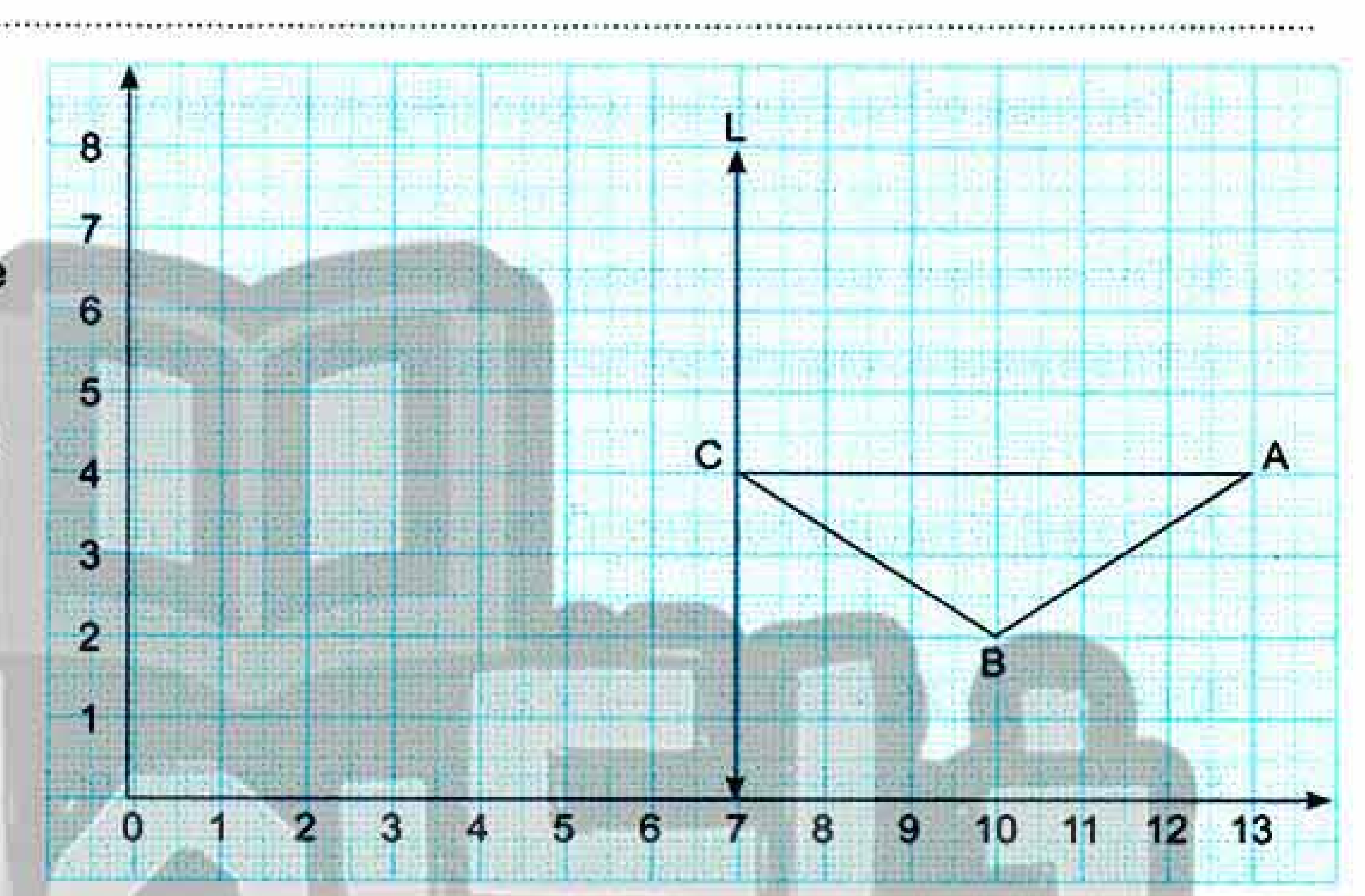
a) Which is greater:

A rhombus which diagonal lengths are 6 cm and 8 cm or a square whose diagonal length is 8 cm.

....

....

b) On the coordinate plane, If L is the axis of reflection for the triangle ABC, draw the image of Δ ABC in the straight line L.



4 Answer the following:

a) (1) If a = 4 , b = 3 and c = 0, find the value of (a + b – c) × (a + b)

....

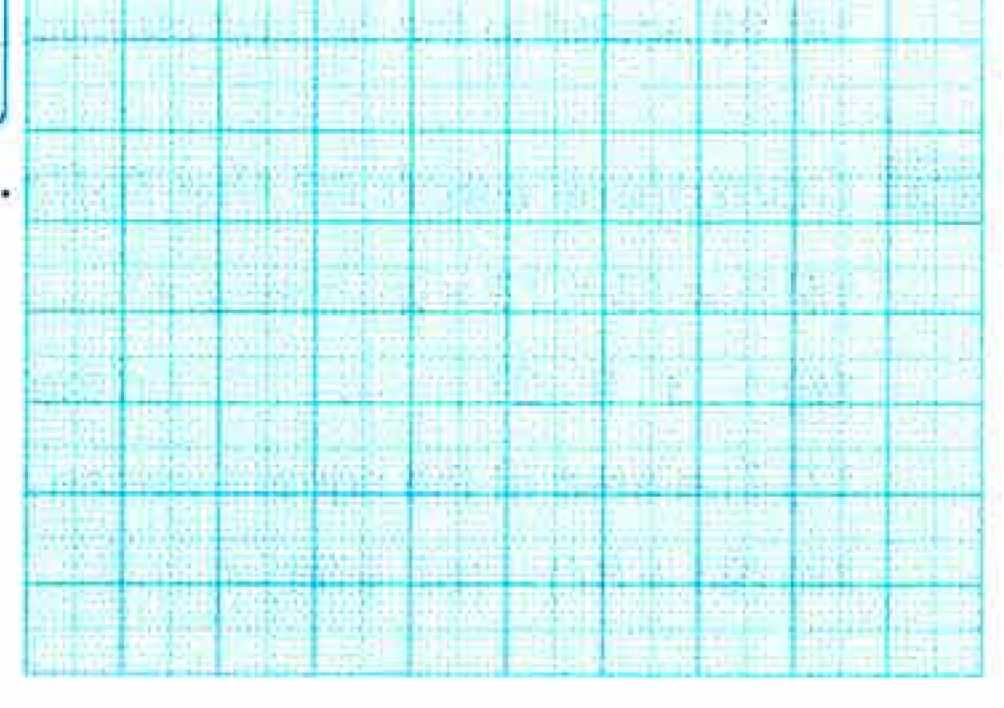
(2) Find the product of: 45 × 99 (using the distributive property)

....

b) The following table shows the marks of 35 students in maths test:

The sets	5–	10–	15–	20–	25–	Total
Frequency	5	9	11	6	4	35

Represent these data using frequency polygon.



17 South Sinai Governorate – Maths Supervision

1 Choose the correct answer:

1) (7 – 5) .... ℕ. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

2) The set of even numbers (𝔼) ∩ the set of odd numbers (𝕆) .... (0 or 2 or 1 or ∅)

3) If $x - 3 = 5$, $x \in ℕ$, then x = ... (2 or 6 or 7 or 8)

4) The area of the rhombus whose diagonal lengths are 12 cm and 16 cm = ... cm². (69 or 96 or 56 or 192)

5) The smallest natural number is .... (0 or $\frac{1}{2}$ or 1 or 2)

6) The symbolic expression for three times of a number added to 5, is .... ($5x + 3$ or $3x + 5$ or $3x - 5$ or $x + 5$)

7) The set of natural numbers ∩ the set of counting numbers (ℕ ∩ ℂ) = ... (ℂ or ℕ or ∅ or 𝔼)

8) (4 × 31) × 25 = (31 × ....) × 25 (2 or 4 or 3 or 5)

9) A circle of diameter length 14 cm, then its circumference = ... cm. ($\pi = \frac{22}{7}$) (88 or 22 or 44 or 14)

10) 2456 ▭ 2645 (> or < or = or ≥)

11) If a man's age now is x years, $x \in ℕ$, then his age after 8 years is .... ($8x$ or $\frac{8}{x}$ or $x - 8$ or $x + 8$)

12) 213 + 57 = 57 + 213 (...................... property). (commutative or associative or distributive or additive identity)

13) Two numbers x , y their sum equals 20 , then y = ... ($20 + x$ or $20 - x$ or $x - 20$ or $\frac{x}{20}$)

14) 99 added to the neutral element of multiplication = ... (92 or 98 or 100 or 199)

2 Complete each of the following:

15) 9 × 13 = 13 × x , then x = ...

16) 1 , 3 , 9 , 27 , ... (in the same pattern)

17) The area of the square whose diagonal length is 6 cm = ...

18) (93 + 87) – (87 + 93) = ...

19) If the point A lies on the axis on reflection L, then its image by reflection in L ....

20) The perimeter of the equilateral triangle whose side length is L cm = ... cm.

21) The set of natural numbers less than 5 is ....

22) The symbolic expression of multiplying 5 by the number x is ....

---

3 23) By using the properties in ℕ, find the result, and tell the property used:

$$2 \times 347 \times 5$$

....

....

24) Write the suitable symbolic expression. If we add 6 to the number x, the result will be 26.

....

....

25) Find the area of a triangle of base length 12 cm and height 5 cm.

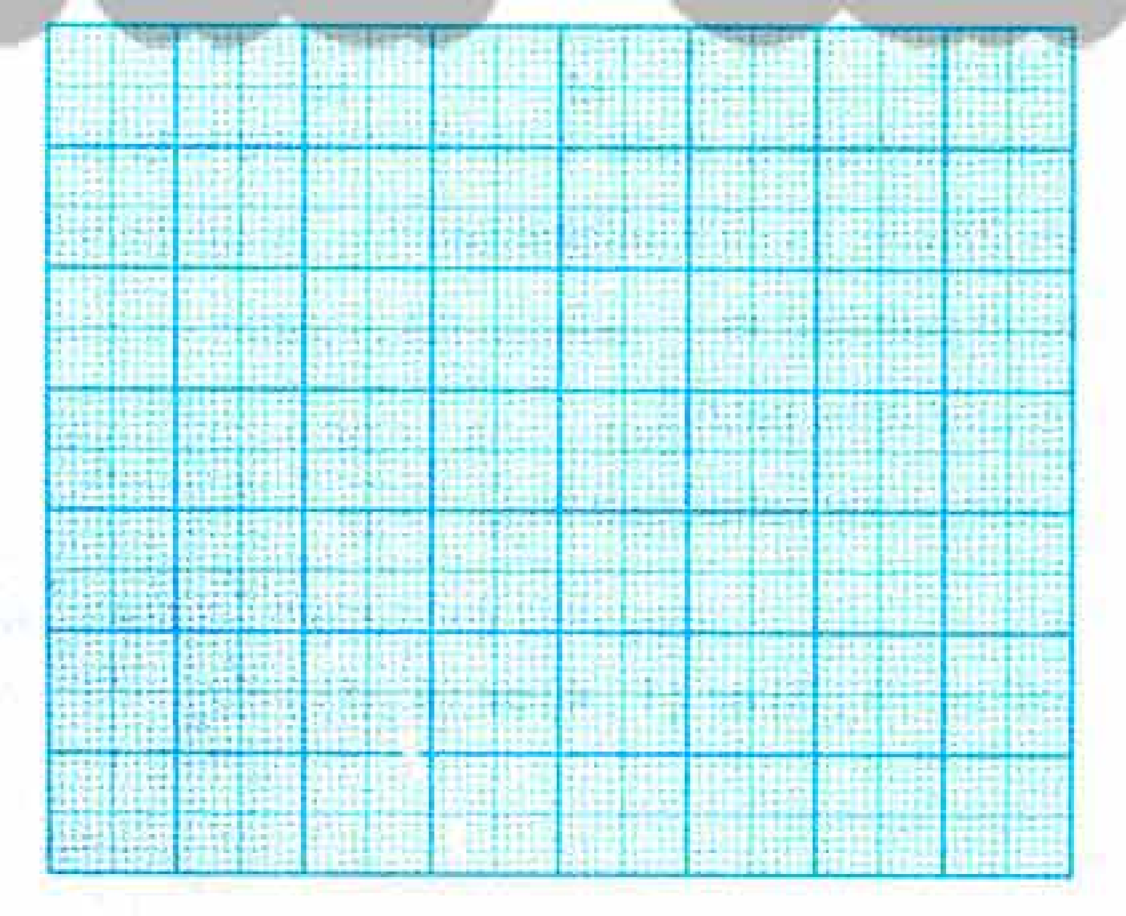
....

....

26) The following table shows the marks of 50 pupils in maths test in one month where the maximum mark is 50 marks:

Sets	10–	20–	30–	40–	Total
Frequency	10	12	18	10	50

Draw each of the histogram and the frequency polygon to this distribution.



18 El-wadi Al Gadeed Governorate – El-Kharga Educational Directorate

1 Choose the correct answer:

1) $\frac{1}{7}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

2) The area of the square whose diagonal length is 6 cm = ... cm². (12 or 18 or 81 or 36)

3) If x is an odd number, then $(x + 1)$ is .... number. (even or odd or prime or otherwise)

4) On the number line:

The length of $\overline{AB}$ = ... length units. (2 or 4 or 5 or 6)

(Number line: 0 1 2 3 4 5 6 7 8, with A at 2 and B at 6)

5) If $\mathbb{O}$ is the set of odd numbers, then $\mathbb{O}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

6) The area of a rhombus whose diagonal lengths are 12 cm and 16 cm = ... cm².

(69 or 96 or 56 or 192)

7) The following table shows the recorded temperatures in 40 cities on a day

Temperatures	20–	22–	24–	26–	28–	Total
Number of cities	7	9	11	8	5	40

The number of cities with temperatures less than 24 degrees Celsius is .... cities.

(11 or 16 or 27 or 13)

8) The number of symmetry axes of an equilateral triangle = ... (4 or 3 or 2 or 1)

9) 213 + 87 = 87 + 213 (.............. property)

(associative or commutative or neutral additive or closure)

10) The perimeter of an equilateral triangle whose side length x cm = ... cm.

($x + 3$ or $3x$ or $6 + x$ or $6x$)

11) In the opposite figure:

(Number line with M to the left of N)

M, N are two natural numbers, then .... (N < M or N > M or M = N or M ≥ N)

12) A circle of diameter 28 cm, its circumference = ... ($\pi = \frac{22}{7}$) (22 or 44 or 88 or 56)

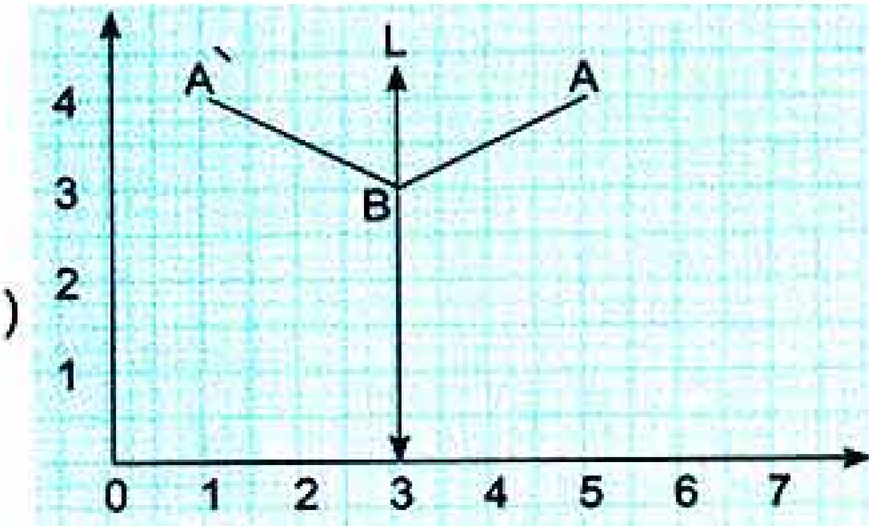
13) The smallest natural number is .... (0 or 1 or 2 or 10)

14) On the opposite coordinate plane:

the image of the point A by reflection in L

is ....

((5 , 4) or (3 , 3) or (1 , 4) or (4 , 1))



2 Complete each of the following:

15) The area of the rhombus in which the length of its side is 10 cm and corresponding height is 9.6 cm = ... cm^2.

16) 8 , 16 , 24 , ... (in the same pattern)

17) The symbolic expression for "adding 3 to the double of the number x" is ....

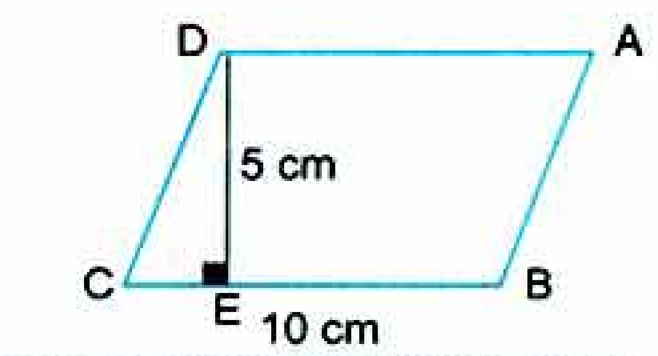
18) The radius of a circle whose circumference is 88 cm = ... cm.

19) If the point A lies on the axis of reflection L, then its image by reflection in L is ....

20) The multiplicative neutral element in $\mathbb{N}$ is ....

21) If 86 × 15 = 86 × y + 86 × 10 , then y = ...

22) The area of the opposite parallelogram = ... cm^2.

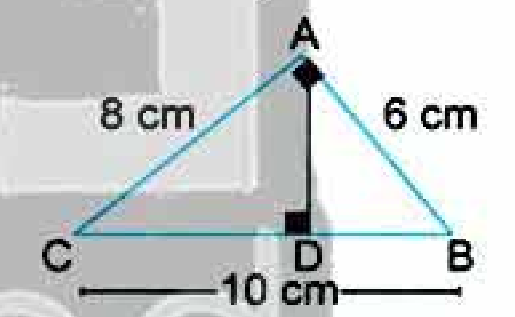


3 Answer the following question:

23) Find the solution set of the equation: $2x + 9 = 21$

....

24) In the opposite figure: ABC is right-angled triangle at A, $\overline{AD} \perp \overline{BC}$. Find the length of $\overline{AD}$.



....

....

....

25) Use the distributive property to find:

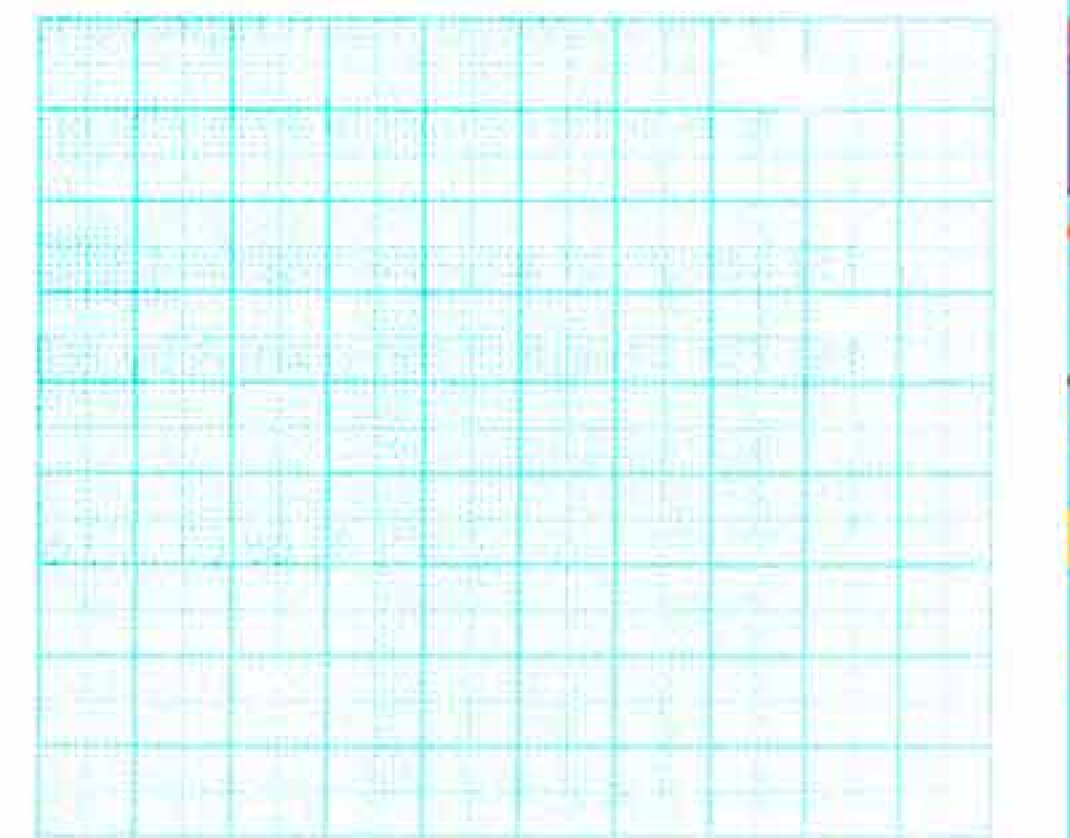
45 × (10 + 2)

....

26) The following table shows the marks of 50 pupils in maths test in one month, where the maximum mark is 50 marks.

Sets	10–	20–	30–	40–	Total
Frequency	10	12	18	10	50

Represent these data by frequency polygon.









19 Fayoum Governorate – Maths Supervision

1 Choose the correct answer:

1) The set of even numbers ∩ the set of odd numbers = ...
(natural numbers or odd numbers or even numbers or ∅)

2) The set of natural prime numbers less than 5 is ....
({1 , 3} or {1 , 2} or {2 , 3} or {1 , 2 , 3})

3) $\frac{1}{7}$ .... natural numbers. (∈ or ∉ or ⊂ or ⊄)

4) $\{\frac{12}{4}\}$ .... The set of odd numbers. (∈ or ∉ or ⊂ or ⊄)

5) If the side length of a square is x and its perimeter is P, then P = ...
($4x$ or $x + 4$ or $x - 4$ or $x \div 4$)

6) Circumference of the circle = ... ($2\pi r$ or πr or $\frac{1}{2}\pi r$ or πr^2)

7) The area of a rhombus whose length of its diagonals are 10 cm and 6 cm = ... cm².
(100 or 60 or 36 or 30)

8) A parallelogram its base length is 8 cm and its corresponding height is 6 cm, then its area = ... cm². (24 or 36 or 18 or 48)

9) The area of a square with diagonal length 10 cm = ... cm². (25 or 50 or 100 or 20)

10) The area of the triangle with base length 6 cm and its height 5 cm = ... cm².
(30 or 18 or 15 or 22)

11) The following table represents the temperature of 30 cities, then the number of cities whose temperature is 22 degrees or more = ... cities. (6 or 11 or 15 or 25)

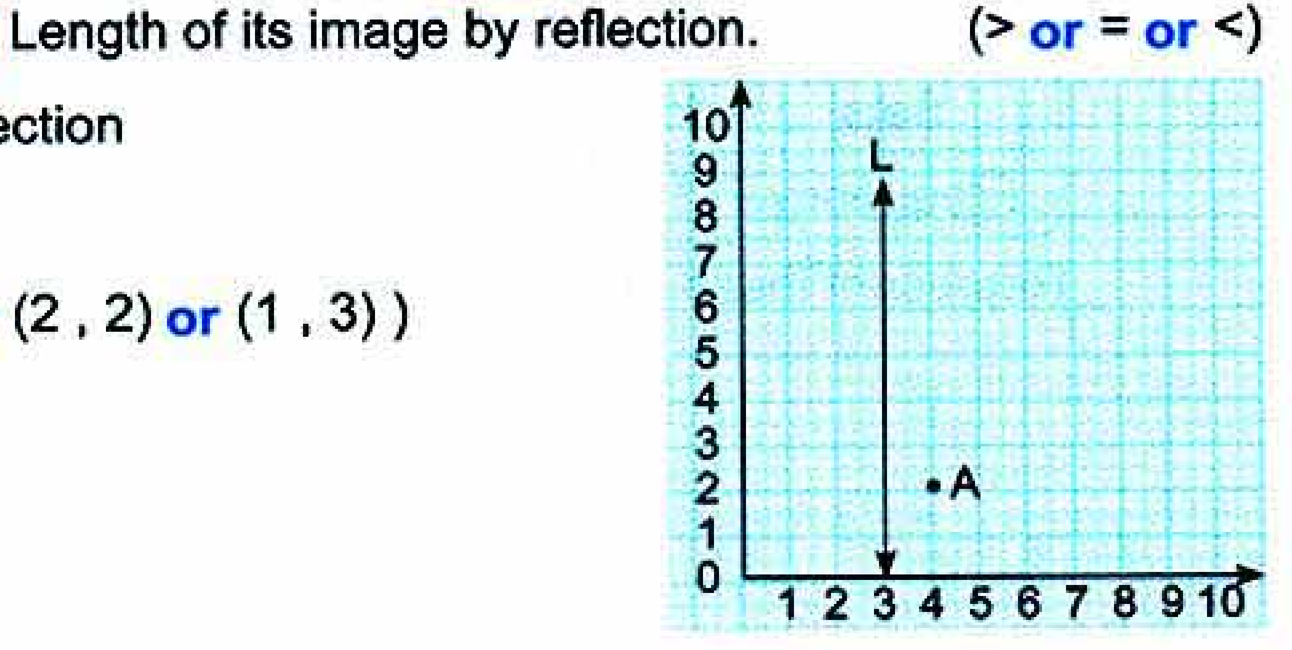
Temperature	18–	20–	22–	24–
No. of cities	15	4	6	5

12) 240 students (boys and girls) have applied for a test.
If the opposite graph represents the given data, what is the number of boys who applied for that test? (60 or 120 or 180 or 240)

Boys
Girls

13) Length of any line segment ▭ Length of its image by reflection. (> or = or <)

14) The image of the point A by reflection across L is ....
((2 , 4) or (6 , 3) or (2 , 2) or (1 , 3))



2 Complete each of the following:

15) If x is an odd number, then $x + 1$ is .... number.

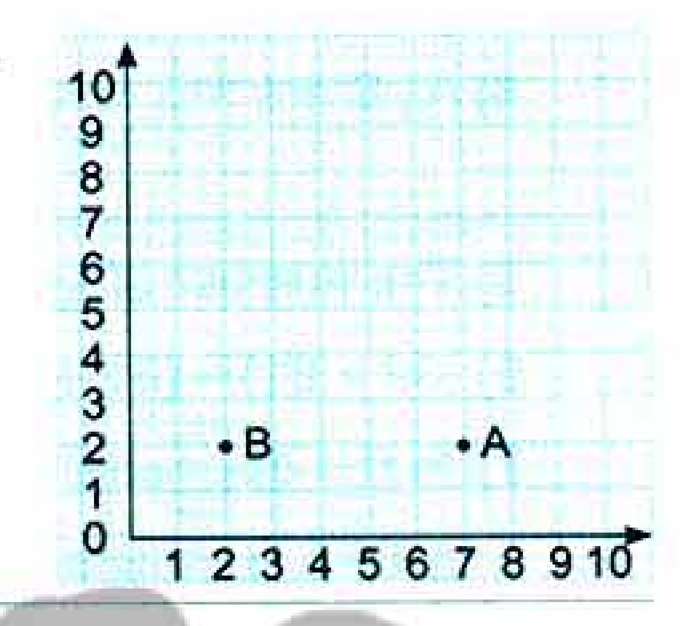
16) 1 , 4 , 8 , 13 , ... (In the same pattern)

17) The multiplicative neutral element in (ℕ) = ...

18) If the sum of two numbers is 10 and one of them is x, then the other number is ....

19) From methods of representing data are .... and ....

20) The number of axes of symmetry of a rhombus is ....



21) In the opposite figure:

A (......... , ...) and B (......... , ...)

22) In the opposite figure:

The length of $\overline{AB}$ = ...

3 Find the result:

23) Find using the properties of operation in ℕ:

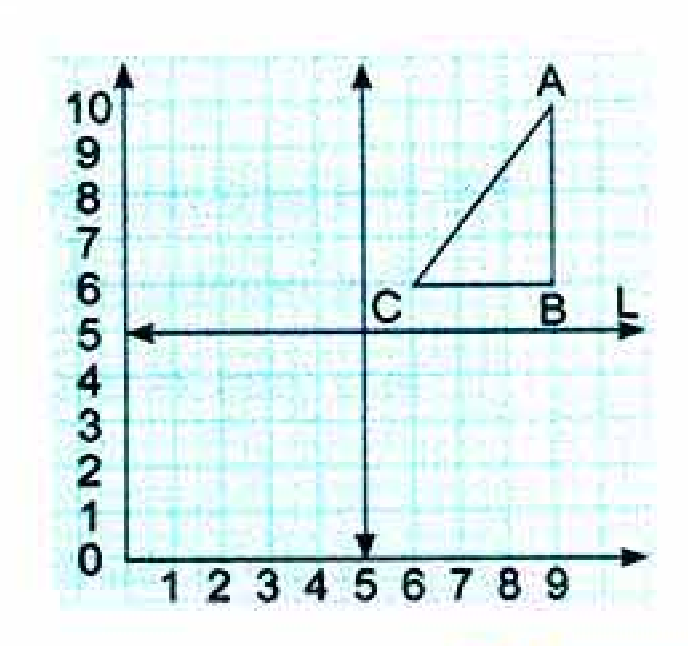
a) 25 × 37 × 4

b) 35 × 118 – 35 × 18

24) Solve the following equation such that $x \in ℕ$: $2x + 9 = 21$

25) If the radius of a circle is 14 cm, find its circumference. ($\pi = \frac{22}{7}$)

26) Draw the triangle A\`B\`C\` as the image of the triangle ABC reflection in the straight line M and determine the coordinates of Δ A\`B\`C\`.



A\` (......... , ...)

B\` (......... , ...)

C\` (......... , ...)

20 Beni Suef Governorate – Directorate of Education – Directorate of Official Lang. Schools

1 Choose the correct answer:

1) The smallest natural number is .... (0 or 1 or 2 or 3)

2) The area of the triangle of base length 12 cm and corresponding height is 5 cm = ... cm^2. (30 or 60 or 17 or 34)

3) $\frac{6}{3}$ .... $\mathbb{N}$. ($\in$ or $\notin$ or $\subset$ or $\not\subset$)

4) A , B are two natural numbers (number line: A, B) then ....

(A < B or A > B or A = B or A ≤ B)

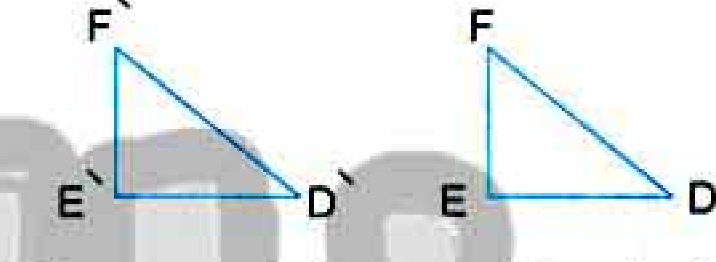
5) The number of symmetry axes of the rectangle = ... (0 or 1 or 2 or 3)

6) (39 + 61) – (61 + 39) = ... (0 or 1 or 100 or 200)

7) In the opposite figure:

Δ DFE is transformed to Δ D\`F\`E\` ,

then this transformation is called ....

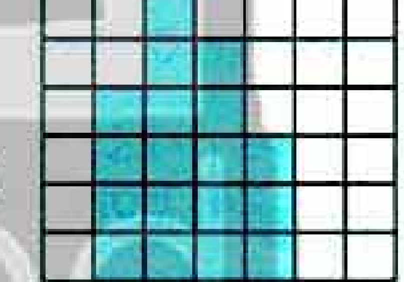


(reflection or translation or rotation or otherwise)

8) If $x + 7 = 19$, $x \in \mathbb{N}$, then x = ... (26 or 12 or 11 or 13)

9) The opposite representation of the data is called a ....

(polygon or solid or histogram or circular sector)



10) The area of the square whose diagonal length is 6 cm = ... cm^2. (18 or 36 or 12 or 6)

11) The shaded part represents .... of the surface area of the circle.



($\frac{1}{2}$ or $\frac{1}{4}$ or $\frac{1}{3}$ or $\frac{2}{3}$)

12) The area of the rhombus whose diagonal lengths are 6 cm and 8 cm = ... cm^2.

(48 or 84 or 24 or 12)

13) The following table shows the recorded temperature of 40 cities on a day.

The number of cities with temperatures less than 24 degrees Celsius = ... cities.

Temperature	20–	22–	24–	26–	Total
No. of cities	10	9	11	10	40

(11 or 19 or 20 or 27)

14) A circle of diameter 14 cm, $\pi = \frac{22}{7}$, its circumference = ... (22 or 44 or 88 or 98)

2 Complete each of the following:

15) The number of symmetry axes of an equilateral triangle = ...

16) The additive neutral element in ℕ ....

17) (4 × 37) × 25 = (4 × 25) × ....

18) The area of the parallelogram = ... × ....

19) The smallest counting number is ....

20) If x is an odd number, then $(x + 1)$ is .... number.

21) The opposite transformation is ....

22) The following frequency table distribution shows the marks of a group of students in an exam.

Sets	5–	10–	15–	20–	25–	30–	35–	Total
No. of students	3	6	8	12	10	6	5	50

The number of students who got 30 marks or more is ....

3 Find the result:

23) Solve the following equation: $2x + 3 = 15$

....

....

24) Using the properties of commutation and association in ℕ to find the result of addition (write the used property) 872 + 199 + 128 + 801

....

....

25) A circle of diameter length 10 cm, find its circumference. ($\pi = 3.14$)

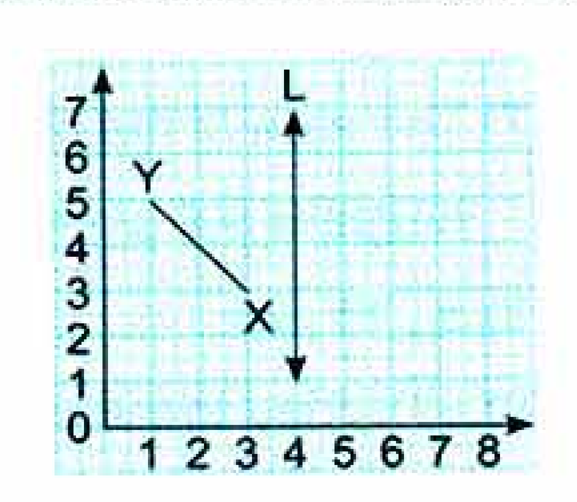
....

....

26) In the opposite coordinates plane:

If L is the axis of reflection for $\overline{XY}$,

then find its image by reflection in L.







21 Menia Governorate – Kafr Elmansorah Formal Language Primary School

1 Choose the correct answer:

1) 7 – 5 .... ℕ. (∈ or ∉ or ⊂ or ⊄)

2) The smallest natural number is .... (0 or 1 or 2 or 3)

3) Two numbers x , y their sum is 20, then y = ... ($20 + x$ or $20 - x$ or $x - 20$ or $\frac{x}{20}$)

4) If $x - 3 = 5$, $x \in \mathbb{N}$, then x = ... (2 or 6 or 7 or 8)

5) The area of the square whose diagonal length is 6 cm = ... cm².

(12 or 18 or 36 or 83)

6) In the opposite figure (number line with M, N) M, N are two natural numbers, then ....

(M < N or M > N or M = N or M ≥ N)

7) (4 × 31) × 25 = (31 × ....) × 25 (2 or 4 or 3 or 5)

8) The circumference of a circle of radius length 4 cm = π × .... cm. (4 or 8 or 16 or 10)

9) (circle M) The colored sector represents .... of the circle. ($\frac{1}{2}$ or $\frac{1}{3}$ or $\frac{1}{4}$ or $\frac{1}{6}$)

10) The opposite number line 0 1 2 3 4 5 6 7 represents the set of .... numbers.

(odd or even or prime or N)

11) $x + 18$ .... $x + 17$, where $x \in \mathbb{N}$. (> or < or = or ≥)

12) 75 + 89 = 89 + ... (75 or 100 or 89 or 120)

13) {1 , 3} ∩ {2 , 4} .... ℕ. (∈ or ∉ or ⊂ or ⊄)

14) The perimeter of an equilateral triangle whose length is L cm = ... cm.

(L + 3 or 3 L or 6 + L or 6 L)

2 Complete each of the following:

15) The symbolic expression of multiplying 5 by the number x is ....

16) If x is an odd number, then $(x + 1)$ is .... number.

17) The area of the rhombus in which the length of its side is 10 cm and corresponding height is 9.6 cm = ... cm².

18) 5 , 15 , 25 .... , ... (in the same pattern)

19) 99 added to the neutral element of multiplication = ...

20) A man is x years old , where $x \in \mathbb{N}$, then his age after 8 years is ....

21) The set of natural numbers less than 5 is ....

22) Natural numbers ∩ counting numbers ($\mathbb{N} \cap \mathbb{C}$) = ...

3 *Find the result:*

23) **Find** the result by using commutative and associative properties: 8 × 49 × 125

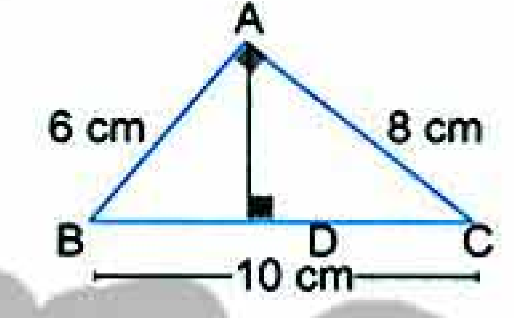
....

....

24) In the following figure ABC is a right-angled triangle at A , $\overline{AD} \perp \overline{BC}$ **find:**

a) The area of Δ ABC.

b) The length of $\overline{AD}$.

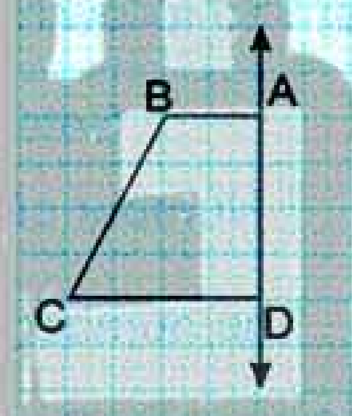


....

....

25) a) Determine the image of the following figure by reflection across L.

b) The length of $\overline{AD}$ = ... units.



26) The following table shows the marks of 50 pupils in a maths test in one month, where the max. mark is 50 marks:

Sets	10–	20–	30–	40–	Total
Frequency	10	12	18	10	50

Represent these data by frequency polygon.








22 Assuit Governorate – Administration of Governmental Language Schools

1 Choose the correct answer:

1) {1 , 3} ∩ {2 , 4} .... ℕ. (∈ or ∉ or ⊂ or ⊄)

2) (93 + 7) – (7 + 93) = ... (0 or 10 or 100 or 1000)

3) If subtract 5 from the number x, we get .... ($5x$ or $5 - x$ or $x - 5$ or $x + 5$)

4) The circumference of a circle of radius 35 cm = ... cm. ($\pi = \frac{22}{7}$)

(110 or 220 or 202 or 101)

5) The smallest counting number is .... (0 or 1 or 2 or 3)

6) The number of symmetry axes of an equilateral triangle = ... (1 or 2 or 2 or 3)

7) The area of the triangle of base length 8 cm and its corresponding height 6 cm = ... cm². (48 or 24 or 14 or 10)

8) 𝔼 ∪ ⓞ = ... (𝔼 or ⓞ or ∅ or ℕ)

9) The following table shows the recorded temperatures of 40 cities on a day:

Sets	20–	22–	24–	26–	28–	Total
Number of cities	7	9	11	8	5	40

The number of cities with temperatures less than 24 degrees Celsius = ... cities.

(11 or 16 or 20 or 17)

10) If the area of a parallelogram = 24 cm² and its base length = 4 cm, then its corresponding height = ... cm. (4 or 5 or 6 or 2)

11) The area of the rhombus in which the length of its side is 10 cm and corresponding height is 9.6 cm = ... cm². (96 or 69 or 48 or 84)

12) The following frequency distribution shows the marks of a group of students in an exam:

Sets	5–	10–	15–	20–	25–	Total
Number of students	3	6	....	13	5	35

The number in the blank space in the table is .... (6 or 7 or 8 or 9)

13) In the opposite figure:

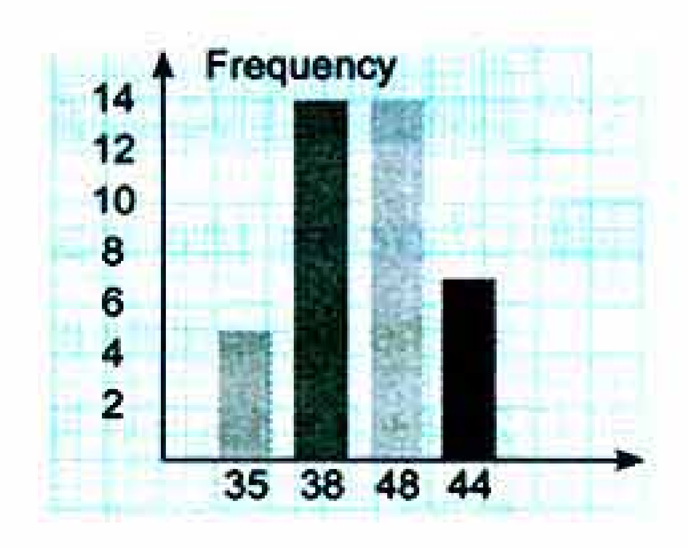
The length of $\overline{AB}$ = ... length units. (3 or 4 or 5 or 6)

(Number line: 0 1 2 3 4 5 6 7 8, with A at 2 and B at 6)

14) The area of the square whose perimeter is 32 cm = ... cm².

(128 or 32 or 64 or 1024)

2 Complete each of the following:



15) This representation of the data is called ....

16) 13 , 16 , 19 , ... , ... (in the same pattern)

17) The opposite transformation represents ....

18) If x is an old number, then $(x + 1)$ is .... number.

19) $(4 \times 31) \times 25 = (31 \times$ .... $) \times 25$

20) If the sum of two numbers x and y is 20, then y = ...

21) The number of axes of symmetry of a rhombus = ...

22) The diameter length of the circle whose circumference is 88 cm = ... cm. ($\pi = \frac{22}{7}$)

3 Find the result:

23) By using the properties of multiplication in N, find $8 \times 17 \times 125$

....

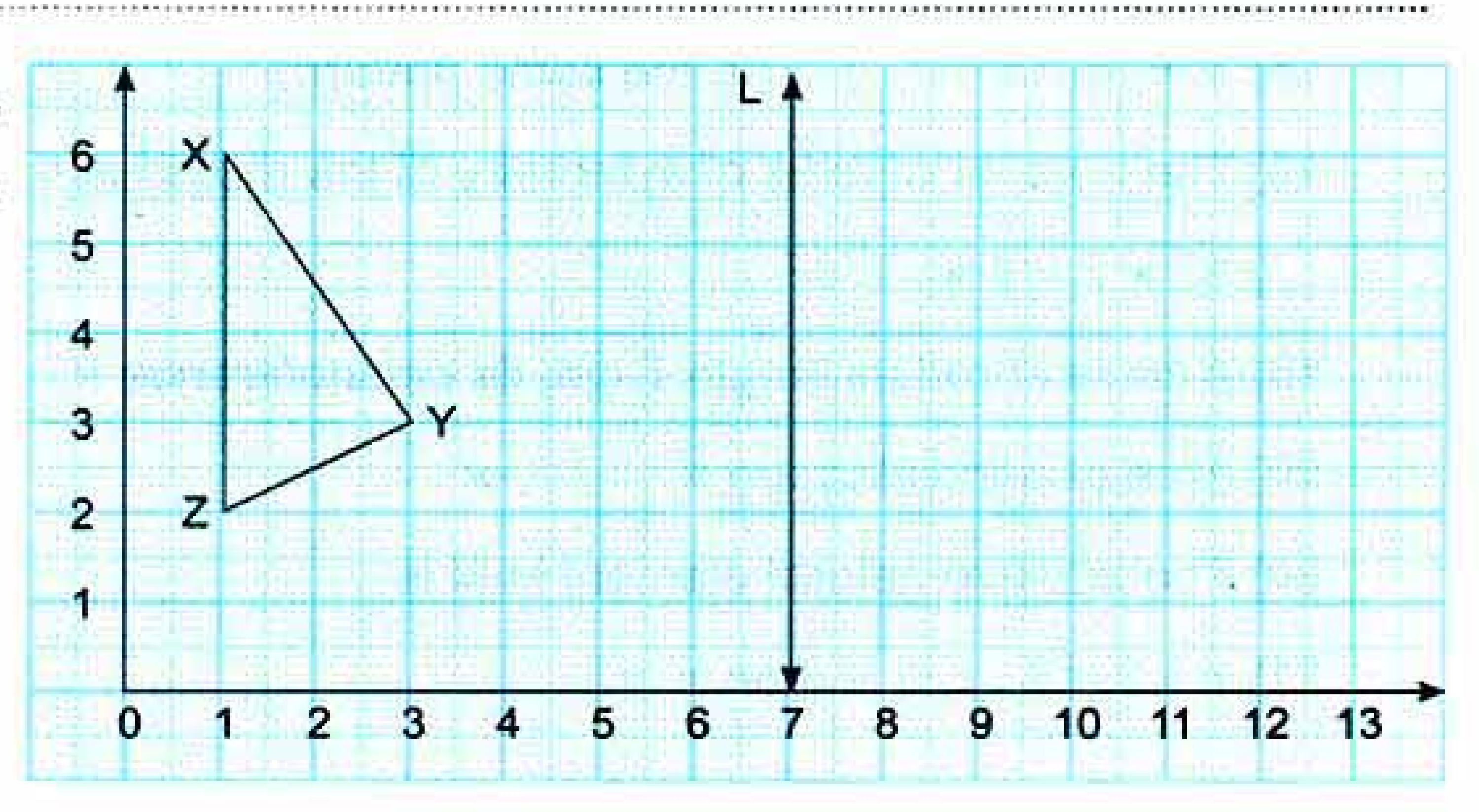
24) Which is greater in area, a rhombus whose diagonal lengths are 6 cm and 8 cm or a square whose diagonal is 8 cm?

....

25) Solve the equation of: $x - 7 = 33$, $x \in \mathbb{N}$.

....

26) In the coordinate plane, if L is the axis of reflection of the shape XYZ draw its image by reflection in L.



23 Qena Governorate – Dishna Official Language Schools

1 Choose the correct answer:

1) The multiplicative natural element in ℕ is .... (0 or 1 or 2)

2) $x + 8 = 15$, $x \in \mathbb{N}$, then $x =$ .... (7 or 3 or 6)

3) The number of axes of symmetry of a rectangle is .... (0 or 2 or 1)

4) 7 is subtracted from $x =$ .... ($7 - x$ or $x - 7$ or $7 + x$)

5) The base length of a triangle is 8 cm, and its height is 5 cm, then its surface area = ... cm^2. (20 cm^2 or 30 cm^2 or 40 cm^2)

6) The smallest counting number is .... (0 or 1 or 2)

7) (4 × ....) × 78 = 7800. (5 or 10 or 25)

8) If $3x = 6$, $x \in \mathbb{N}$, then $x =$ .... (4 or 6 or 2)

9) Area of square of diagonal 8 cm is .... cm^2. (64 or 11 or 32)

10) The isosceles triangle has .... line(s) of symmetry. (0 or 1 or 2)

11) The area of the rhombus whose diagonal lengths are 12 cm, and 16 cm = ... cm^2. (56 or 96 or 129)

12) {2 , 3} .... ℕ. (∈ or ∉ or ⊂ or ⊄)

13) The opposite geometric transformation is .... (rotation or translation or reflection)

14) 999 + 53 = 53 + 999 is called .... property. (commutative or closure or associative)

2 Complete each of the following:

15) 1, 4, 8, 13, ... (in the same pattern).

16) The number of axes of symmetry of the rhombus = ...

17) 12 × 7 = 7 × ....

18) A circle of radius length 7 cm, its circumference = ... cm. ($\pi = \frac{22}{7}$)

19) Area of parallelogram = ... × ....

20) The additive natural element in ℕ is ....

21) $x + 3 = 5$, $x \in \mathbb{N}$ then $x =$ ....

22) The smallest natural number is ....

23) The smallest odd number is ....

24) 33 + 299 = 299 + ...

3 *Find the result:*

25) Find the area of rhombus whose side length is 10 cm and height is 6 cm.

26) Use the properties to find the value of $2 \times 48 \times 5$

27) Calculate the circumference of the circle whose diameter length is 7 cm. ($\pi = \frac{22}{7}$)

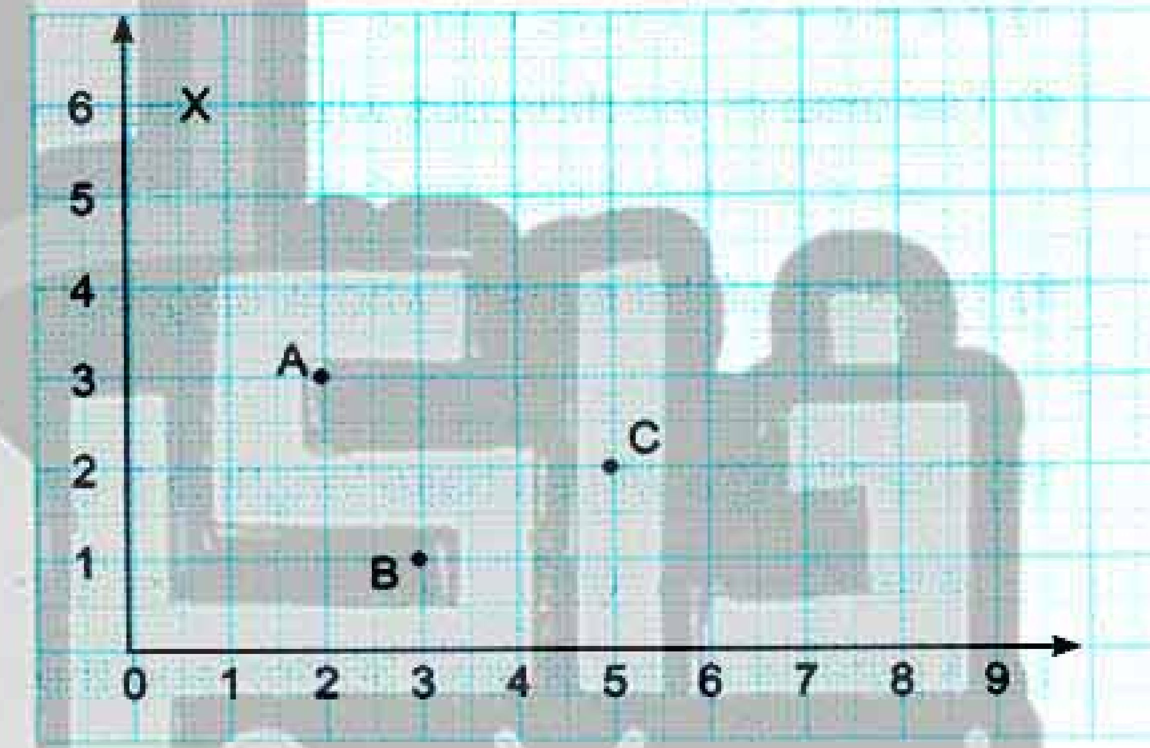
28) Solve the equation: $2x + 9 = 21$, $x \in \mathbb{N}$.

29) From the following coordinate plane complete:

A (.......... , ...)

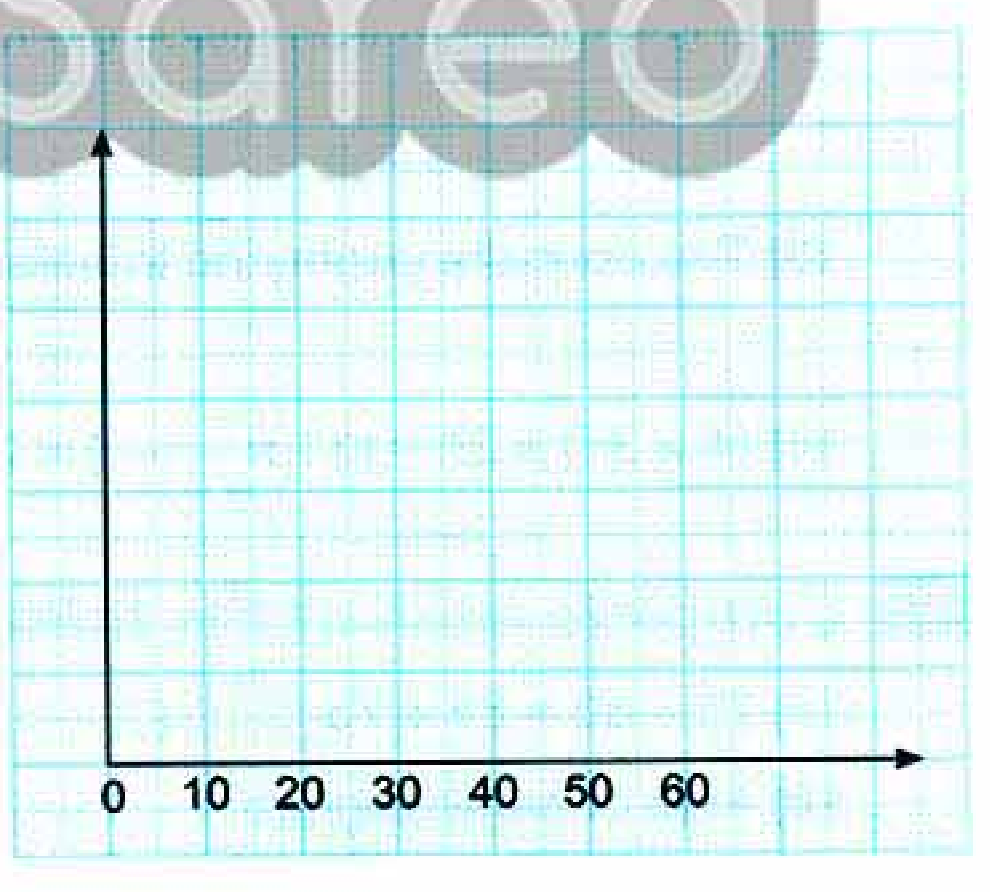
B (.......... , ...)

C (.......... , ...)



30) Use the following table to draw frequency polygon:

Sets	10–	20–	30–	40–	50–	Total
Frequency	2	5	3	4	1	15





24 Sohag Governorate – Maths Supervision

1 Choose the correct answer:

1) The isosceles triangle has .... line(s) of symmetry. (1 or 2 or 3 or 4)

2) $\frac{0}{7}$ .... ℕ. (∈ or ∉ or ⊂ or ⊄)

3) The circumference of a circle with diameter length 14 cm = ... ($\pi = \frac{22}{7}$)

(7 or 44 or 28 or 16)

4) The multiplicative identity element in (ℕ) is .... (0 or 1 or 2 or 3)

5) The smallest counting number is .... (0 or 1 or 2 or 3)

6) The number of altitudes of the triangle is .... (1 or 2 or 3 or 4)

7) If $x + 3 = 5$, $x \in$ ℕ, then x = ... (1 or 2 or 3 or 4)

8) The area of the rhombus whose diagonal lengths are 6 cm and 8 cm = ... cm².

(48 or 20 or 24 or 40)

9) The area of the square whose diagonal length is 6 cm = ... cm².

(18 or 36 or 12 or 6)

10) The triangle whose base length is 5 cm and the corresponding height of it is 8 cm, its area = ... cm². (13 or 20 or 26 or 40)

11) A parallelogram of area 36 dm² and the length of its base is 4 dm, then the corresponding height = ... dm. (18 or 9 or 8 or 12)

12) 5 is subtracted from twice the number x = ...

($5 - x$ or $2x - 5$ or $5x + 2$ or $5 - 2x$)

13) The opposite geometric transformation is ....

(rotation or translation or reflection)

14) (4 × 31) × 25 = (31 × ....) × 25 (2 or 4 or 3 or 5)

2 Complete each of the following:

15) 75 + 89 = 89 + 75 (............ property)

16) Area of parallelogram = ... × ....

17) The number of axes of symmetry of a square is ....

18) If $x \in$ ℕ , $2x = 8$, then x = ...





19) $\frac{\text{The circumference of the circle}}{\text{The length of the diameter}}$ = ...

20) $\mathbb{E} - \mathbb{N}$ = ...

21) 213 + 57 = 57 + ...

22) Use ∈ or ∉ : 0.15 .... $\mathbb{N}$.

3 *Find the result:*

23) Solve the equation in $\mathbb{N}$: $5x - 2 = 8$

....

....

24) Using the commutative and associative properties, find the product of 5 × 37 × 2

....

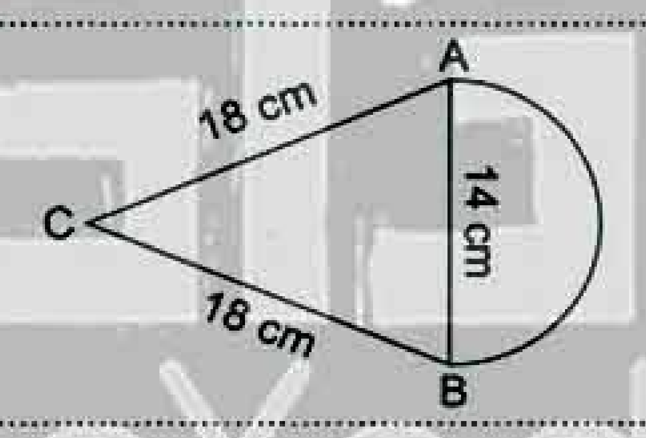
....

25) Find the area of the rhombus whose side length is 5 cm and height is 3 cm.

....

....

26) Calculate the perimeter of the opposite figure where AB is the diameter of the circle, AB = 14 cm. ($\pi = \frac{22}{7}$)

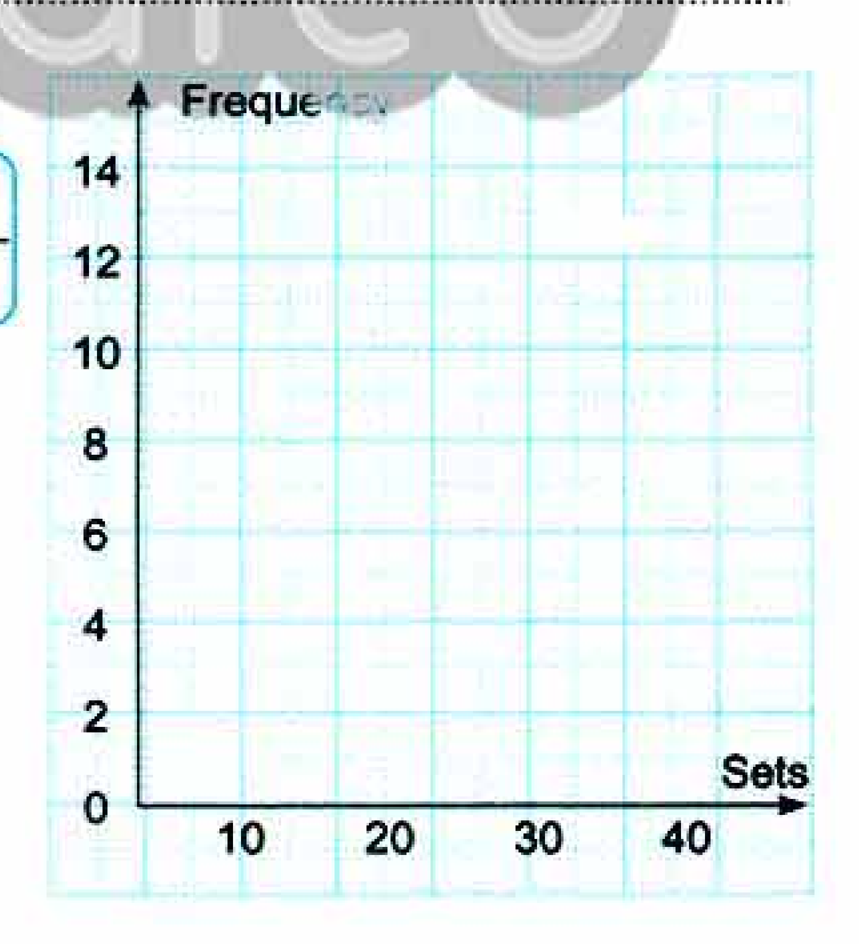


....

....

27) Represent the following by frequency polygon.

Sets	10–	20–	30–	40–	Total
Frequency	8	10	14	8	40



b) DC = 828 ÷ 23 = 36 cm

area of △ DCE = $\frac{1}{2}$ EC × DC

= $\frac{1}{2}$ (35 - 23) × 36

= 6 × 36 = 216 cm²

c) (25 × 4) × 9892 = 989200

Exam 3

Left to the pupil.

Answers of Pre-exam Final Revision

First:

1) 81, 243 2) 44 cm 3) 50 cm² 4) x = 3
5) 213 6) 0 7) 24 cm² 8) odd
9) base × height 10) n + 3 11) 5
12) 1 13) 88 14) 10 15) even
16) 210, 280 17) (4,4) 18) 1 19) 2
20) zero 21) 31.4 22) 12 23) 20
24) 43 25) 0 26) 13 27) L × w
28) 10,1 29) 200 cm² 30) height
31) 128 , 512 32) distributive 33) {0}

Second:

1) 2 2) 3 3) 220 4) 297
5) ∈ 6) 16 7) is not possible
8) 2 9) 100 10) translation 11) 14 cm²
12) reflection 13) (8 × 50) + (8 × 4) 14) 10
15) $x - 3$ 16) (2 , 2) 17) 2 πr 18) 3
19) rotation 20) 1 21) 3 x 22) ∈
23) 9 24) 25 25) 49 cm²

Third:

1) a) 75 + 25 + 16 comm.

= (75 + 25) + 16 associative = 100 + 16 = 116

b) Area of Δ = $\frac{1}{2}$ × 6 × 5 = 15 cm².

Area of rhombus = $\frac{1}{2}$ × 7 × 4 = 14 cm².

Area of the Δ is greater.

2) a) BC = 3 cm, area = 6 cm² b) 14 − x

3) a) Area = 5 × 5 = 25 cm² b) Left to the pupil.

4) a) X = {5 , 6} b) Left to the pupil.

c) AB = 4 units

5) a) 38 + 62 + 47 + 53 commutative

= (38 + 62) + (47 + 53) associative

= 100 + 100 = 200.

b) Area of Δ = $\frac{1}{2}$ × 18 × 12 = 108 cm².

Area of the rhombus = $\frac{1}{2}$ × 24 × 8 = 96 cm².

Area of Δ is greater.

c) Draw it by yourself.

Answers of Model Tests from the School book

Model 1

1. 1) ∈ 2) {2} 3) (2x + 3) 4) 0
5) 3ℓ 6) m < n 7) 8 8) reflection
9) 4 10) 96 11) 4
12) 50 13) 40 14) 18

2. 15) 22 16) 5 x 17) {0, 1} 18) 18
19) itself 20) 44 21, 22) left to the pupil.

3. 23) The other number = 35 − x

24) (53 + 47) + 67 (associative, commutative)

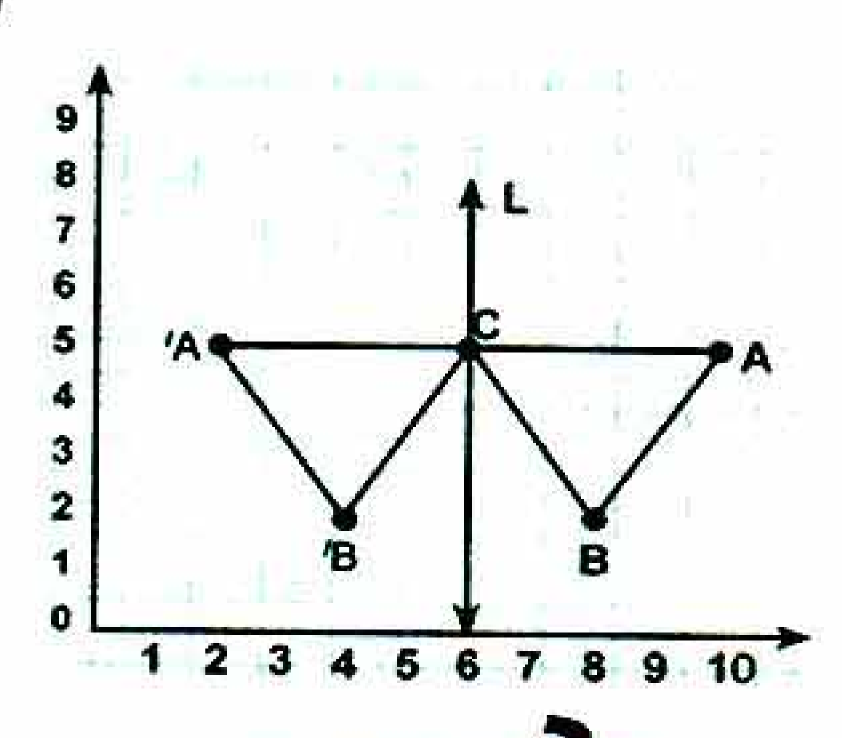
= 100 + 67 (add. operation)

= 167.

25) The area of △ ABC = $\frac{1}{2}$ × 6 × 8 = 24 cm².

AD = $\frac{2 \times 24}{10}$ = 4.8 cm.

26)



Model 2

1. 1) $2y$ 2) $\varnothing$ 3) 88 4) 0
5) 5 6) $\in$ 7) 32 8) 24
9) no. (3) 10) 45 11) 30
12) 5 13) 64 14) (1, 4)

2. 15) even 16) n < m 17) (x + 3) 18) 96
19) axis of symmetry 20) 213

3. 21) 8 22) 150

23) $45 \times 10 + 45 \times 2$
$= 450 + 90$
$= 540$

24) $x - 7 + 7 = 33 + 7$
$x = 40$ S.S. = {40}

25) The area of the square = $10 \times 10 = 100$ cm²
EC = 15 – 10 = 5 cm.
Area of △ DCE = $\frac{1}{2} \times 5 \times 10 = 25$ cm².
Area of ABED = area of ABCD + area of DCE
= 100 + 25 = 125 cm².

26) Left to the pupil.



Model 3

Left to the pupil.

Answers of some School Examinations

1 Cairo Governorate – Maadi Educational Directorate

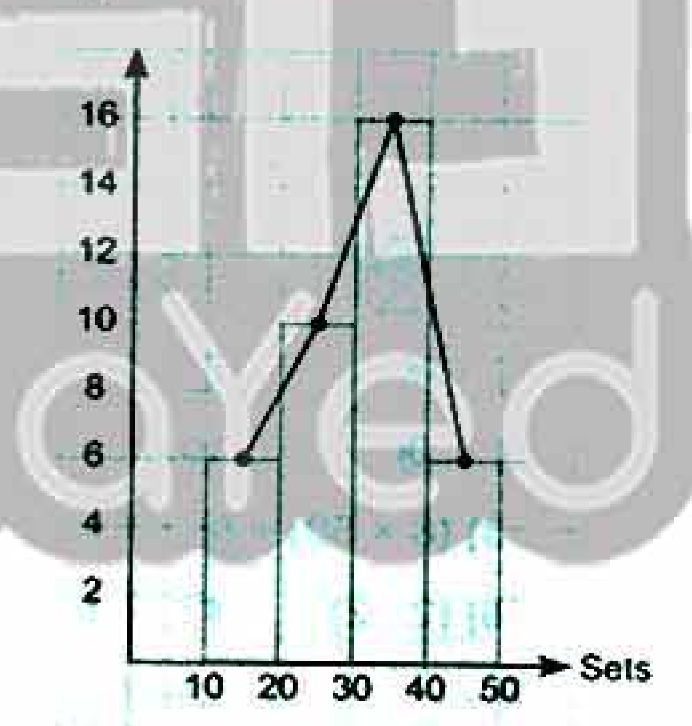
1. 1) $7 - x$ 2) $\in$ 3) rotation
4) additive identity 5) { 4 } 6) 5
7) 6 8) $10 - x$ 9) $\notin$
10) even 11) { 2 } 12) wrong
13) 300 14) 3

2. 15) 3 16) 18 cm²
17) 1 18) 48 19) base length × height
20) {4 , 5 , 6 , 2 , 3} 21) {0 , 2 , 4 , 6 , 8}
22) $\frac{1}{2}$ × length of 1st diagonal × length of 2nd diagonal

3. 23) a) $3x = 14 - 8$, $3x = 6$, $x = \frac{6}{3} = 2$
b) $\frac{1}{2} \times 6 \times 4 = 3 \times 4 = 12$ cm²

4. The circumference = $2 \pi r$
$= 2 \times \frac{22}{7} \times 21 = 132$ cm

5. a) $25 \times (8 + 2) = 25 \times 10 = 250$
b)



2 Cairo Governorate – Nasr City Educational Zone – Alsun Modern School

1. 1) 53 2) {0 , 1 , 2 , 3 , 4} 3) $\in$
4) $\varnothing$ 5) 5 6) 20 7) 1
8) translation 9) 5
10) commutative 11) 100 12) 22
13) 5 14) 3 L

2. 15) zero , 1 16) 4 17) 22

18) 4 19) $\mathbb{N}$ 20) 3 21) (5 + 7)

22) a) $x + 7$ b) $x - 5$

3. 23) a) 4 × 25 × 19 (commutative)

= (4 × 25) × 19 (associative)

= 100 × 19 = 1900

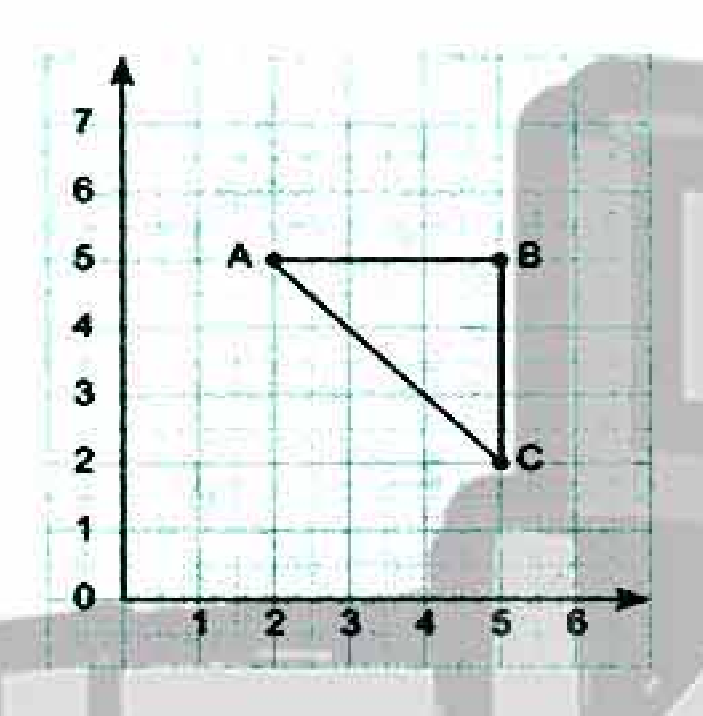
b) 64 + 36 + 81 + 19 (commutative)

= (64 + 36) + (81 + 19) (associative)

= 100 + 100 = 200

24) $x = 2 + 5$, $x = 7$

25)



AB = 5 – 2 = 3 units length

26) X ∩ Y = {4} , X U Y = {1 , 2 , 3 , 4 , 5 , 6}

X – Y = {1 , 2 , 3}

4. Left to the pupil.

3 Cairo Governorate – Abdeen Zone – Mohamed Farid O L S

1. 1) ∈ 2) 0 3) 35

4) 5 5) 2y 6) reflection

7) 5 8) $10 - x$ 9) 15

10) 8 11) 30 12) 18

13) (3) 14) 28

2. 15) ∅ 16) Zero 17) 2 18) {1, 0}

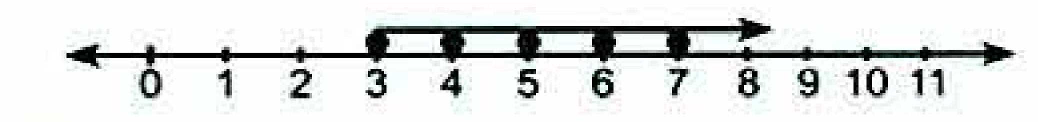
19) 4 20) A (the same point) 21) 16 cm²

22) 19

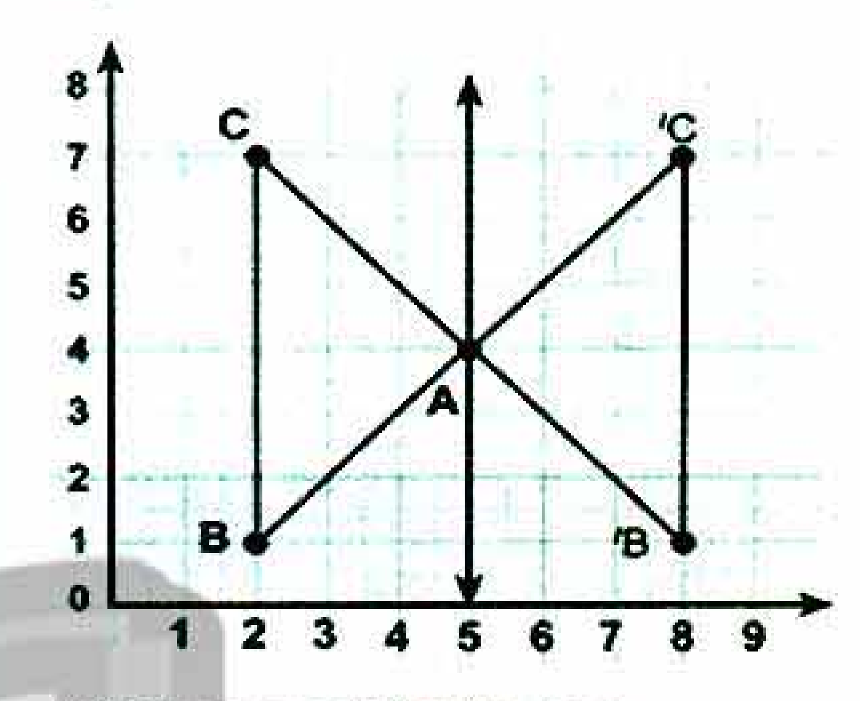
23) (33 + 67) + 76

= 100 + 76 = 176

24) {3 , 4, 5, ...}



25)



26) The area of the figure =

area of square ABCD + area of triangle CDE

$= 8 \times 8 + \frac{1}{2} \times 4 \times 8$

= 64 + 6 = 80 cm²

4 Giza Governorate – El Haram Directorate – Fadl Language School

1. 1) $x + 3$ 2) 8 π 3) 18

4) ∉ 5) 24 6) 3 L

7) translation 8) 5 9) commutative

10) M > N 11) 0 12) histogram

13) ∅ 14) 7

2. 15) 2 16) 50 17) 4 18) 4

19) B 20) 16 21) odd 22) 20

3. 23) 8 × 125 × 117 (commutative)

= (8 × 125) × 117 (associative)

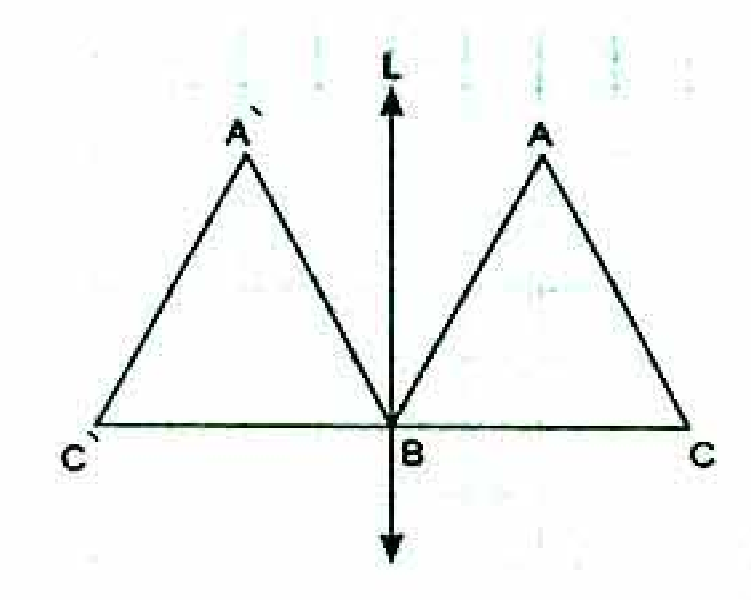
= 1000 × 117 = 117000

24) $2x = 5 + 3$, $2x = 8$, $x = \frac{8}{2} = 4$

25) The circumference = 2 × π × r

$= 14 \times \frac{22}{7} = 44$ cm

26)

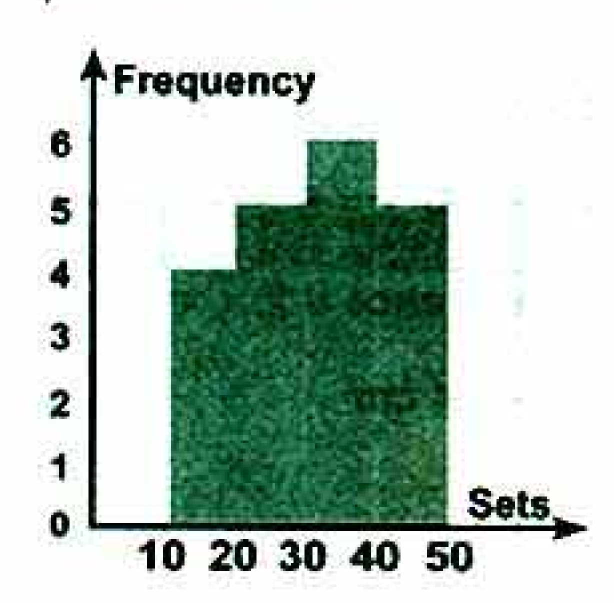


5 Giza Governorate – Maths Inspection

1. 1) $2\pi r$ 2) y + 3   3) ∈
4) 4   5) 16   6) 5
7) 36   8) 6   9) ∈
10) ∉   11) 20   12) 28
13) 24 cm²   14) 0

2. 1) its diagonals   2) even
3) base x its height.   4) 75
5) {4, 3, 2, 1, 0}   6) A = 4 , B = 9
7) 32   8) 81

3. 1) $x + 7 = 15$
then $x + 7 - 7 = 15 - 7$
$x = 8$
2) 20 + 55 + 80 + 45
= (20 + 80) + (55 + 45)
= 100 + 100 = 200
3) The circumference of the circle = $2\pi r$
$= 2 \times \frac{22}{7} \times 14 = 88$ cm
4)

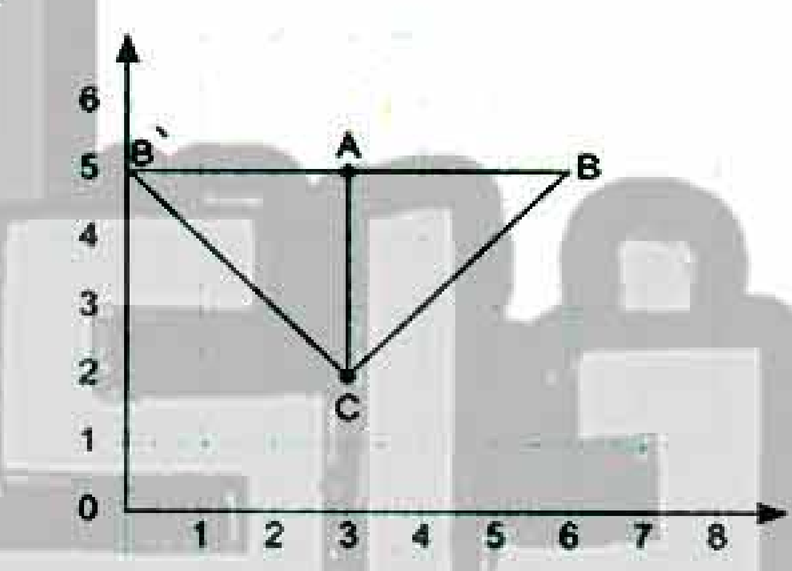


6 Alex. Governorate - El Montazah Zone – Maths Supervision

1. 1) $21 - x$ 2) 50   3) 2   4) 4
5) even   6) 4   7) 10   8) 2 y – 3
9) 4   10) 44   11) 48   12) 28
13) reflection   14) 15

2. 15) 31.4   16) zero   17) 4   18) 18 cm²
19) no   20) y + 5   21) 24   22) 2 , 1 , 0

3. 23) 4 × 25 × 17 (commutative)
= (4 × 25) × 17 (associative)
= 100 × 17 = 1700
24) $3x = 10 + 5$, $3x = 15$, $x = \frac{15}{3} = 5$
25)



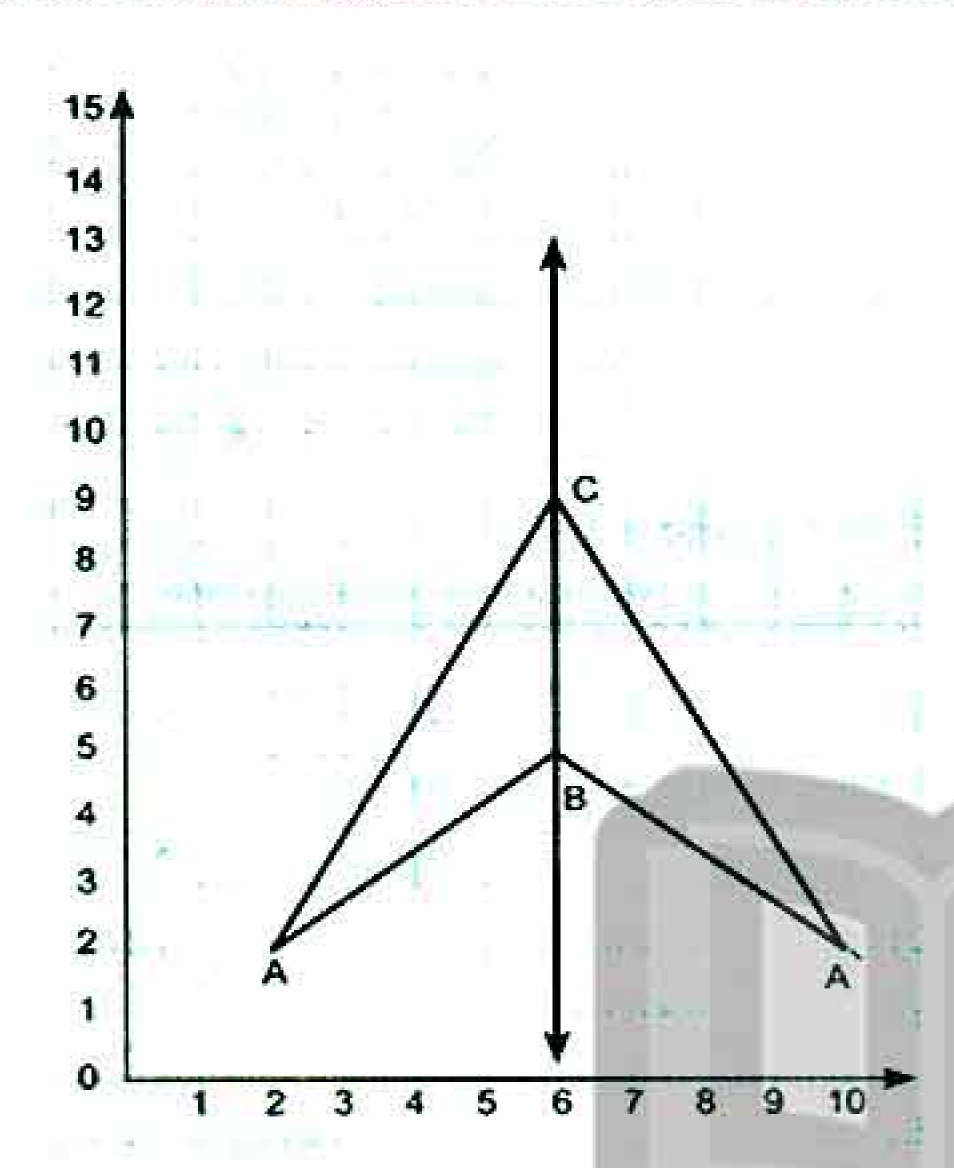
The image of Δ ABC is AB`C by reflection in $\overline{AC}$.

7 Alex. Governorate – El Montazah Zone – Maaly Language School

1. 1) $2x + 7$ 2) 0   3) commutative
4) ∅   5) 25 cm²   6) 20 – y
7) ∈   8) 3 L   9) ⊄
10) 24 cm²   11) 30   12) 4
13) reflection   14) {0, 1}

2. 1) 24 cm²   2) 44 cm
3) even number.   4) π
5) M < N   6) 96 cm²
7) 99   8) 8, 5

3. a) △ ABC is the image of △ ABC by reflection in $\overleftrightarrow{BC}$



b) $2x + 9 = 21$

$2x + 9 - 9 = 21 - 9$

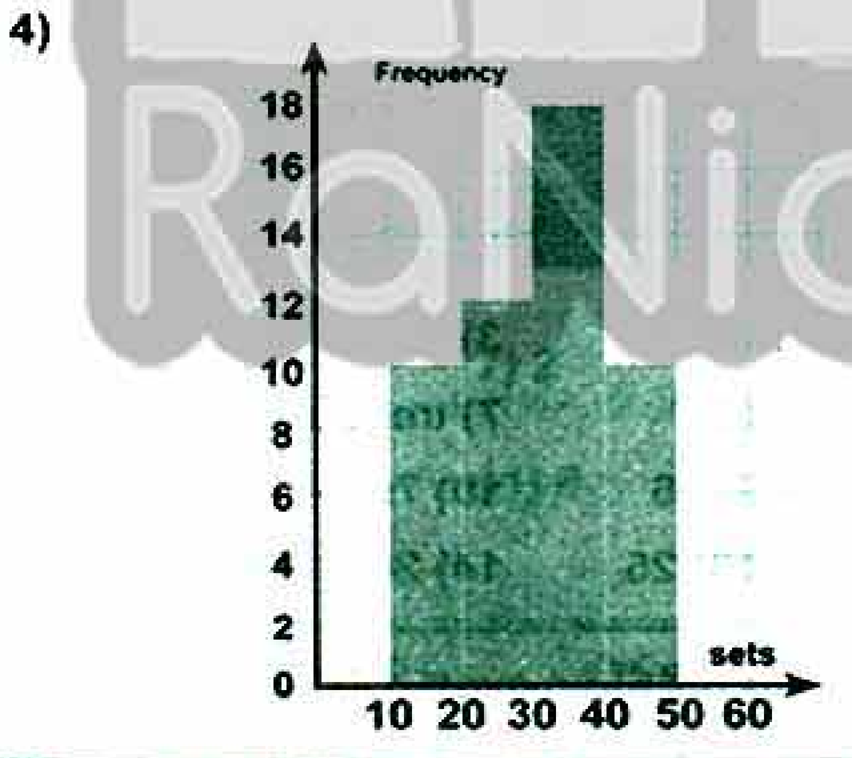
$2x = 12$ then $\frac{2x}{2} = \frac{12}{2}$

Then $x = 6 \Rightarrow$ s.s = {6}

c) The perimeter of figure = perimeter of half circle + 10 + 10

$= \frac{1}{2} \times 7 \times \frac{22}{7} + 20 = 31$ cm

4)



8 Qalubia Governorate – Maths Supervision – Experimentel Official L. Schools

1. 1) zero 2) ∈ 3) 18 4) 36
5) 5 6) 8 7) zero 8) 50
9) $3 + x$ 10) 24 11) is not possible
12) reflection 13) 16 14) 13

2. 15) a 16) 16 , 32 17) 6 + 6 + 5 = 17 cm
18) 9
19) 1) equal in length 2) perpendicular to each other
20) half 21) 3 22) $\overline{AE}$

3. 23) $45 \times 10 + 45 \times 2 = 450 + 90 = 540$

24) $x = 12 - 3 = 9$

25) $= \frac{1}{2} \times 34 \times 15 = 17 \times 15 = 255$ cm²

26) Left to the pupil.

9 Gharbia Governorate – Gharbia Educational Directorate Maths Supervision

1. 1) { 2 } 2) 4 3) 14 4) $3x$
5) 12 6) ⊂ 7) 4 8) 64
9) even 10) translation 11) 1
12) 20 13) 44 14) congruent

2. 15) 17 16) rotation 17) {0 , 1 , 2}
18) 96 19) 2 20) 22 , 25
21) $3 + 2x$ 22) 10

3. 23) a) $8 \times 125 \times 117$ (commutative)

$= (8 \times 125) \times 117$ (associative)

$= 1000 \times 117 = 117000$

b) $2x = 21 - 9$, $2x = 12$, $x = \frac{12}{2} = 6$

24) a) Area of the rhombus $= \frac{1}{2} \times 8 \times 6 = 24$ cm²

Area of the square $= \frac{1}{2} \times 8 \times 8 = 32$ cm² ,

then the area of the square is greater than the area of the rhombus.

b) Left to the pupil.

10 Dakahlia Governorate – Maths Supervision

1. 1) {0 , 1 , 2 , 3} 2) 1 3) 8
4) $10 - x$ 5) 18 cm² 6) A itself 7) zero

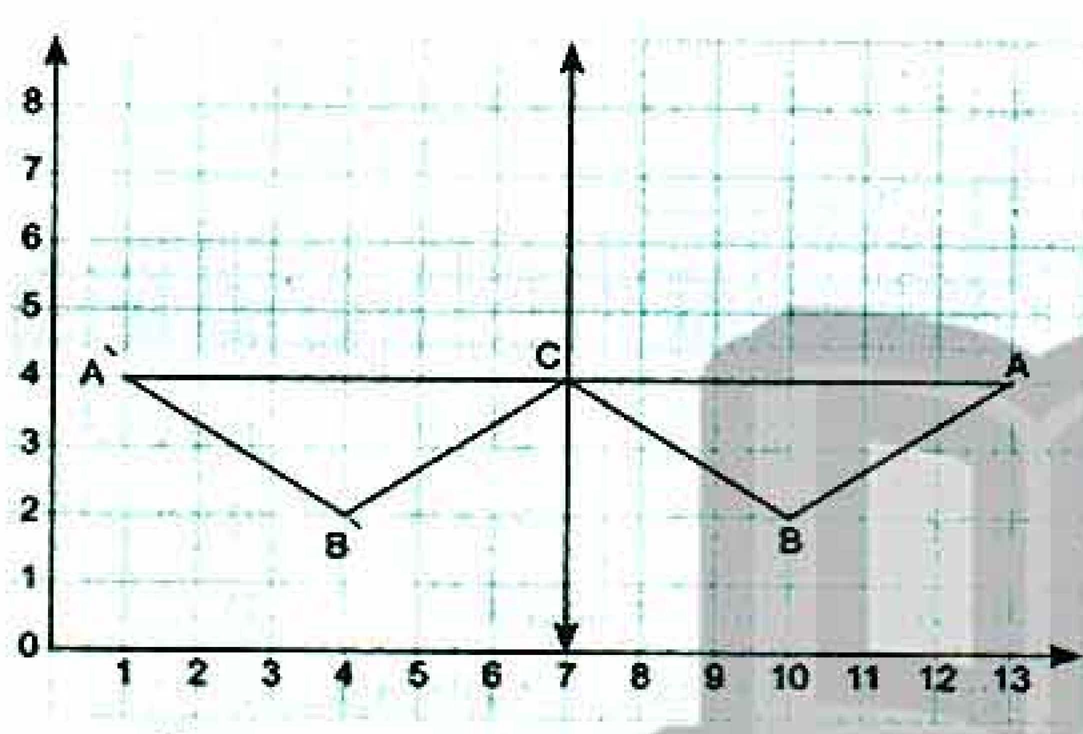
2. 8) ∉ 9) < 10) 19 11) 25

12) $3 + x$ 13) 4 14) 14 15) 180
16) (1 , 4) 17) 30 18) 64 19) 28

3. a) 872 + 128 + 199 + 801 (commutative)
= (872 + 128) + (199 + 801) (associative)
= 1000 + 1000 = 2000

b) $3x = 29 - 8$, $3x = 21$, $x = \frac{21}{3} = 7$

c)



d) 1) $\frac{1}{2} \times 12 \times 16 = 96$ cm²

2) Its side length = 960 ÷ 96 = 10 cm
Its perimeter = 10 × 4 = 40 cm

e) Left to the pupil.

11 Kafr El Sheikh Governorate – Maths Supervision

1. 1) ∅ 2) 7 3) 9 4) 20
5) {0 , 1 , 2} 6) 6 7) 2
8) 24 9) 18 10) 3 y 11) 7
12) ∈ 13) 4 14) 1

2. 15) A itself 16) 1 17) 25 , 3100
18) translation 19) π 20) {1 , 3 , 5 , 7 , ...}
21) $4 - 5x$ 22) 24 cm²

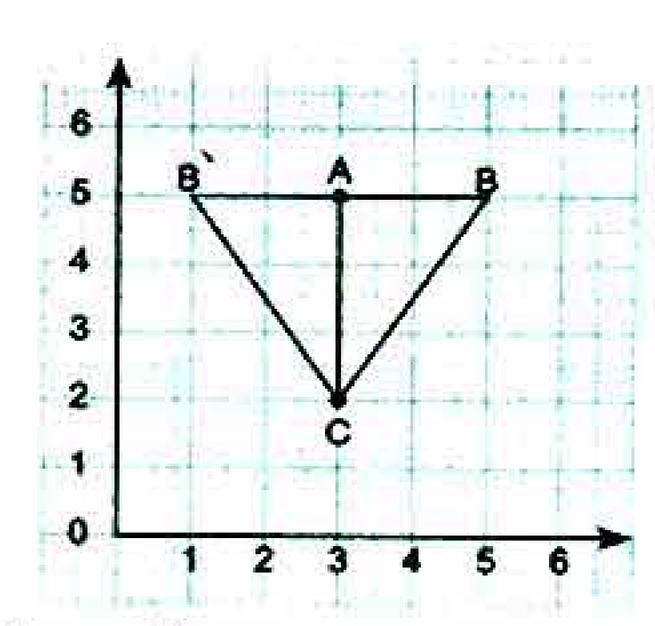
3. 23) a) $2x = 21 - 9$, $2x = 12$, $x = \frac{12}{2} = 6$

b) 45 × (127 – 27) (distributive property)
= 45 × 100 = 4500

24) 60 × 3.14 + 130 + 130
= 188.4 + 260 = 448.4 cm

25) a) 5 – 2 = 3 unit length

b)



26) Left to the pupil.

12 Damietta Governorate – Official Language Schools

1. 1) 1 2) ∉ 3) $x - 5$ 4) 4
5) base × height 6) zero
7) distributive 8) 12 9) 18
10) 55 11) 31.5 12) 4
13) 2 14) 16

2. 15) 16 16) commutative
17) associative 18) y + 3 19) reflection
20) 3 21) 2400 22) 8

3. 23) 2 × 5 × 347 (commutative)
= (2 × 5) × 347 (associative)
= 10 × 347 = 3470

24) $x = 12 - 3$, $x = 9$

25) 10 × 3.14 = 31.4 cm 26) Left to the pupil.

13 Sharkia Governorate – Diarb Negm Educational Zone – El Sweedy Gov. Lang. School

1. 1) ∉ 2) { 2 } 3) 2 4) 3 L
5) 16 6) 1 7) translation
8) 5 9) 18 10) 70 11) 3.5
12) 84 13) 25 14) 20

2. 15) 1 16) an even 17) 32
18) $x + 3$ 19) 5 20) 5
21) commutative 22) quarter

3. 23) 8 × 125 × 73 (commutative)
= (8 × 125) × 73 (associative)
= 1000 × 73 = 73000

24) $3x = 8 - 2$, $3x = 6$, $x = \frac{6}{3} = 2$

25) The area of the rhombus

$= \frac{1}{2} \times 6 \times 8 = 24\ cm^2$

, the area of the square $= \frac{1}{2} \times 8 \times 8 = 32\ cm^2$

then the area of the square is greater than the area of the rhombus.

26) Left to the pupil.

14 Port Said Governorate – Educational Directorate – Maths Inspectorate

1\. 1) reflection 2) {0 , 1} 3) A itself
4) 4 5) 18 6) $5x$
7) 22 8) 30–

2\. 9) ∈ 10) ∅ 11) $2x + 3$ 12) <
13) 96 14) 6 15) 30 16) 2
17) $20 - x$ 18) 40 19) $\frac{1}{2}$ 20) 0
21) 5 22) 0

3\. 23) $4x = 33 + 7$, $4x = 40$, $x = \frac{40}{4} = 10$ cm

24) $\overset{2}{14} \times \frac{22}{7} = 44$ cm

25) $53 + 47 + 76 + 24$ (commutative)

$= (53 + 47) + (76 + 24)$ (associative)

$= 100 + 100 = 200$

26) Left to the pupil.

15 Ismailia Governorate – Directorate of Educational
Al- Manar Language School

1\. 1) ⊂ 2) 18 3) { 0 } 4) 2
5) 2 M – 3 6) MATH MATH 7) 2 8) 60
9) 7 10) 5 11) 8 12) 13.5
13) 3 L 14) { 2 }

2\. 15) an even 16) 21 17) $18 - x$
18) 4 19) zero 20) reflection
21) one 22) 2

3\. 23) $\frac{1}{2} \times 10 \times 3.14 + 10 + 10$

$= 15.7 + 20 = 35.7$ cm

24) $37 \times (100 + 1)$

$= 37 \times 100 + 37 \times 1$

$= 3700 + 37 = 3737$

25) $2x = 13 - 3$, $2x = 10$, $x = \frac{10}{2} = 5$

26) Left to the pupil.

16 Suez Governorate – Directorate of Educational
Mathematics Inspectorate

1\. 1) 0 2) 88 3) 0 4) 7
5) 64 6) 75 7) ⊂ 8) 8
9) ⊂ 10) { 2 } 11) < 12) ∈
13) 4 14) 4

2\. 15) 55 , 40 16) $5x$ 17) A itself 18) 0 , 1
19) commutative 20) 32 , 40
21) 0 , 1 22) 4.8 cm

3\. a) The area of the rhombus

$= \frac{1}{2} \times 6 \times 8 = 24\ cm^2$

, the area of the square

$= \frac{1}{2} \times 8 \times 8 = 32\ cm^2$,

then the area of the square > the area of the rhombus

b) Left to the pupil.

4\. a) 1) $(a + b - c) \times (a + b)$

$= (4 + 3 - 0) \times (4 + 3) = 49$

2) $45 \times (100 - 1)$

$= 45 \times 100 - 45 \times 1$

$= 4500 - 45 = 4455$

b) Left to the pupil.

17 South Sinai Governorate – Mathes Supervision

1\. 1) ∈ 2) ∅ 3) 8 4) 96
5) 0 6) $3x + 5$ 7) © 8) 4
9) 44 10) < 11) $x + 8$
12) commutative 13) $20 - x$ 14) 100

2\. 15) 9 16) 81 17) 18 cm^2

18) zero 19) A itself 20) 3 L

21) {0 . 1 . 2 . 3 . 4} 22) 5 x

3. 23) 2 × 5 × 347 (commutative)

= (2 × 5) × 347 (associative)

= 10 × 347 = 3470

24) x + 6 = 26

25) $\frac{1}{2} \times \overset{6}{12} \times 5 = 30$ cm²

26) Left to the pupil.

18 El-wadi Al Gadeed Governorate – El-Kharga Educational Directorate

1. 1) ∉ 2) 18 3) even 4) 4

5) ⊂ 6) 96 7) 16 8) 3

9) commutative 10) 3 x 11) N > M

12) 88 13) 0 14) (1 . 4)

2. 15) 96 16) 32 17) 3 + 2 x

18) 14 19) A itself 20) 1

21) 5 22) 50 cm²

3. 23) 2 x = 21 – 9 . 2 x = 12 . $x = \frac{12}{2} = 6$ S.S = {6}

24) The area of Δ ABC = $\frac{1}{2} \times 8 \times 6$

= 24 cm²

. AD = $\frac{24 \times 2}{10} = \frac{48}{10} = 4.8$ cm

25) 45 × 10 + 45 × 2

= 450 + 90 = 540

26) Left to the pupil.

19 Fayoum Governorate – Maths Supervision

1. 1) ∅ 2) {2 . 3} 3) ∉ 4) ⊂

5) 4 x 6) 2 π r 7) 30 8) 48

9) 50 10) 15 11) 11 12) 60

13) = 14) (2 . 2)

2. 15) an even 16) 19

17) 1 18) 10 – x

19) Histogram, frequency polygon

20) 2 21) A (7 . 2) . B (2 . 2)

22) 5 unit length

3. 23) a) 25 × 4 × 37 (commutative)

= (25 × 4) × 37 (associative)

= 100 × 37 = 3700

b) 35 × (118 – 18) (distributive)

= 35 × 100 = 3500

24) 2 x = 21 – 9 . 2 x = 12 . $x = \frac{12}{2} = 6$

25) $2 \times \frac{22}{7} \times \overset{2}{14} = 88$ cm

26) The drawing is left to the pupil.

A` (1 . 10) . B` (1 . 6) . C` (4 . 6)

20 Beni Suef Governorate – Directorate of Education – Directorate of Official Lang. Schools

1. 1) 0 2) 30 3) ∈ 4) A < B

5) 2 6) 0 7) translation

8) 12 9) histogram 10) 18

11) $\frac{1}{3}$ 12) 24 13) 19 14) 44

2. 15) 3 16) 0 17) 37

18) base length × corresponding height

19) 1 20) an even

21) reflection 22) 11

3. 23) 2 x = 15 – 3 . 2 x = 12 . $x = \frac{12}{2} = 6$

24) 872 + 128 + 199 + 801 (commutative)

= (872 + 128) + (199 + 801) (associative)

= 1000 + 1000 = 2000

25) 10 × 3.14 = 31.4 cm

26) Left to the pupil.

21 Minia Governorate – Kafr Elmansorah Formal Language Primary School

1. 1) ∈ 2) 0 3) 20 – x 4) 8

5) 18 6) M < N 7) 4 8) 8

9) $\frac{1}{4}$ 10) odd 11) > 12) 75

13) ⊂ 14) 3 L

2. 15) $5x$ 16) an even 17) 96

18) 35 , 45 19) 100 20) $x + 8$

21) {0 , 1 , 2 , 3 , 4}

22) Counting numbers.

3. 23) 8 × 125 × 49 (commutative)

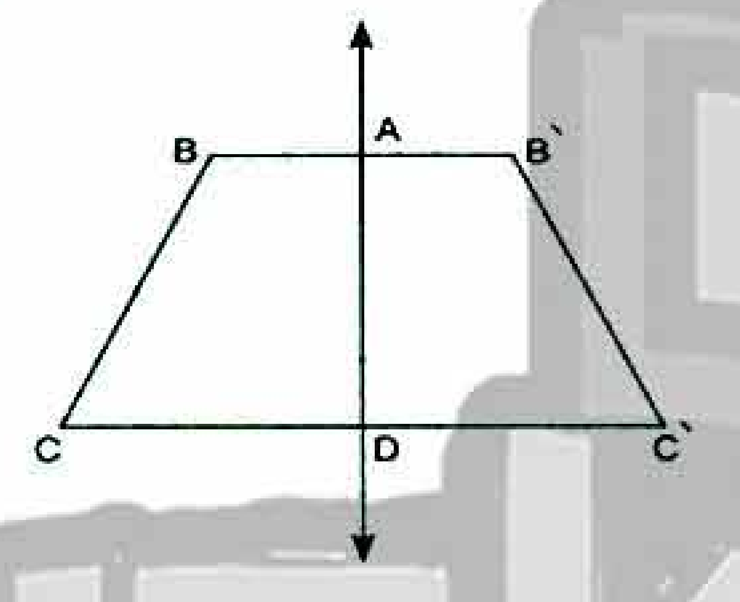
= (8 × 125) × 49 (associative)

= 1000 × 49 = 49000

24) a) $\frac{1}{2} \times 6 \times 8 = 24$ cm²

b) AD = $\frac{2 \times 24}{10} = 4.8$ cm

25) a)



b) 4 units of length

22 Assuit Governorate – Administration of Governmental Language Schools

1. 1) ⊂ 2) 0 3) $x - 5$ 4) 220

5) 1 6) 3 7) 24 8) N

9) 16 10) 6 11) 96 12) 8

13) 4 14) 64

2. 15) bar graph 16) 22 , 25

17) reflection 18) an even

19) 4 20) $20 - x$ 21) 2 22) 28

3. 23) 8 × 125 × 17 (commutative)

= (8 × 125) × 17 (associative)

= 1000 × 17 = 17000

24) The area of the rhombus = $\frac{1}{2} \times 6 \times 8 = 24$ cm²

, The area of the square

= $\frac{1}{2} \times 8 \times 8 = 32$ cm²

The area of the square > area of the rhombus

25) $x = 33 + 7$, $x = 40$

26) Left to the pupil.

23 Qena Governorate – Deshna Educational zone

1. 1) 1 2) 7 3) 2 4) $x - 7$

5) 20 cm² 6) 1 7) 25 8) 2

9) 32 10) 1 11) 96 12) ⊂

13) reflection 14) commutative

2. 15) 19 16) 2 17) 12

18) 44 19) base length x its height

20) 0 21) 2 22) 0

23) 1 24) 33

3. 25) The area of rhombus = 10 × 6 = 60 cm²

26) 2 × 48 × 5 = (2 × 5) × 48

= 10 × 48 = 480

27) The circumference of the circle

= $2\pi r = 7 \times \frac{22}{7} = 22$ cm

28) $2x + 9 = 21$, $x \in N$

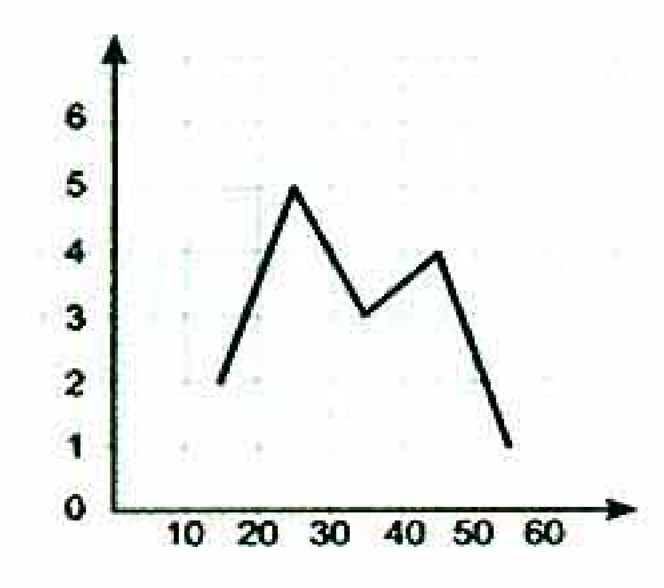
$2x + 9 - 9 = 21 - 9$

$2x = 12$

$\frac{2x}{2} = \frac{12}{2}$ Then $x = 6$

29) A (2, 3), B (3, 1), C (5, 2)

30) The frequency polygon of distribution



24 Sohag Governorate – Maths Supervision

1. 1) 1 2) $\in$ 3) 44 4) 1

5) 1 6) 3 7) 2 8) 24

9) 18 10) 20 11) 9 12) $2x - 5$

13) reflection 14) 4

2. 15) commutative

16) base length × its corresponding height

17) 4 18) 4 19) π

20) $\varnothing$ 21) 213 22) $\notin$

3. 23) $5x = 8 + 2$, $5x = 10$, $x = \frac{10}{5} = 2$

24) $5 \times 2 \times 37$ (commutative)

$= (5 \times 2) \times 37$ (associative)

$= 10 \times 37 = 370$

25) $5 \times 3 = 15 \text{ cm}^2$

26) $\frac{1}{2} \times \overset{2}{\cancel{14}} \times \frac{22}{\cancel{7}} + 18 + 18$

$= 22 + 36 = 58$ cm

27) Left to the pupil.

